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*A statistical study of the public
schools of the southern ...*

Norman Frost, Bureau of Education

HARVARD UNIVERSITY



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UNITED STATES BUREAU OF EDUCATION
BULLETIN, 1915, NO. 11 WHOLE NUMBER 636



A STATISTICAL STUDY OF THE PUBLIC SCHOOLS OF THE SOUTHERN APPALACHIAN MOUNTAINS

By NORMAN FROST



WASHINGTON
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1915

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CONTENTS.

	Page.
Letter of transmittal	5
Introduction	7
General characteristics	7
Illiteracy	10
School enrollment attendance	11
Length of school term	13
Average number of days each child attends	15
Teachers	16
Schoolhouses	22
School expenditures	25
Private schools	27
Summary	28
Statistics	30

LIST OF ILLUSTRATIONS.

	Page.
PLATE 1. A farm in one of the "hollers"	Frontispiece.
2. Types of farm buildings in the mountains	8
3. Mountain mills	8
4. Types of residences in the Appalachian region	8
5. Types of school buildings	16
6-7. Log schoolhouses	16
8. A mountain consolidated school and a private school	16
9-16. Diagrams	24

LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, March 19, 1916.

SIR: The southern Appalachian Mountain region is rich in resources. Its population contains a larger per cent of native-born white persons than that of any other section of the United States. The great majority of these are of the sturdiest stocks—English, Irish, Scotch, German, and French Huguenot. The energy, native ability, and patriotism of these people are known to the world. Yet, because of historical and geographical reasons, the section as a whole is backward in development, and a large per cent of the people are illiterate. Here, as elsewhere, and probably to a greater degree than in any other section of this country, the development of natural resources and the turning of potential wealth into actual wealth must depend on the education and training of the people. To this end the people are eager to help themselves, and people of other sections are willing to help them. But neither self-help nor the efforts of others can have the best results without a better understanding of present conditions, needs, and tendencies and of the difficulties inherent in the situation. To set these forth to some extent, clearly and accurately, is the purpose of the accompanying manuscript, prepared as the result of a study undertaken for the Bureau of Education by Norman Frost, whose experience in connection with Berea College, Berea, Ky., equips him unusually well for this work. Mr. Frost did not attempt to make this study exhaustive. To do this would have required more time than was at his command and more funds than the bureau had available for this purpose. It is, however, the most extensive study of education in this section yet undertaken, and is as accurate as the material at hand would permit. Delay in publication makes some of the figures out of date by one or two years, but it is not now possible to bring them up to date. I recommend that the manuscript be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

THE SECRETARY OF THE INTERIOR.

A STATISTICAL STUDY OF THE PUBLIC SCHOOLS OF THE SOUTHERN APPALACHIAN MOUNTAINS.¹

INTRODUCTION.

Information concerning educational conditions in the southern Appalachian region is scattered, fragmentary, and often partisan to the assumption either that conditions are ideal or that they are inconceivably bad. The purpose of this study is to draw together the available facts in the case. Necessarily, this study is largely statistical.

The territory covered has been selected with the advice of school men familiar with conditions in the respective States. Practically all of this mountain region is included in 216 counties, lying in the 8 States of Alabama, Georgia, Kentucky, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. These are referred to in the following pages as the "Appalachian Counties." Many of them are only partially mountainous, but are included because they lie wholly within the Appalachian region. Of these 216 counties, 98 are referred to as the "mountain counties." These include the more rugged counties, where the topography and economic conditions are most unfavorable to progress in education.

The data used in the tables are taken from the Federal Census of 1910 and from the school reports of the respective States. In every instance the latest information available has been used. In the course of the study six counties were visited. These were selected counties which might be considered as representative of the different types.

The counties visited were Buchanan and Wise in Virginia; and Blount, Cumberland, Hancock, and Hawkins in Tennessee.

Special thanks are due the county superintendents of these counties and the school officials of the respective States, for the valuable assistance they have given in obtaining desired information.

GENERAL CHARACTERISTICS.

The southern Appalachian region contains about 100,000 square miles. It is almost as large as the New England States and New York State combined; it is larger than the State of Oregon. This region extends in a northeasterly direction from a point south of Birmingham, Ala., to Maryland and Pennsylvania; and from the

¹ A preliminary edition of this bulletin, without tables and plates, was issued in April, 1915.

Blue Ridge in the east to a rather indefinite line on the west, running near the middle of Tennessee and Kentucky, and the western side of West Virginia.

The character of this region varies greatly. There are broad, fertile valleys and narrow gorges; rough, precipitous mountains, and high, rolling plateaus; rich blue-grass land, and barren hillsides. The Shenandoah Valley, or, as it is often called, the Valley of Virginia, is one of the most fertile valleys in the country. Its inhabitants will tell you that it is the "dimple of the universe; a modern Garden of Eden." Many of the counties lying largely in the valley include also parts of the Blue Ridge and of the Shenandoah Mountains.

Wise County, Va., made famous by the stories of John Fox, jr., is in the main a rough, mountainous, mining county; yet a 40-acre farm about half a mile south of Coeburn sold for \$10,700 in the spring of 1913. Coeburn is a village of less than 700 inhabitants. There are, too, some 30 or 40 square miles of blue-grass land in the southern part of the county.

Hancock County, Tenn., is considered a rough, mountainous county. It has no railroad, nor even a "pike." Yet some of the valley land in Hancock is held at \$175 or \$200 an acre.

In the same way each of the counties might be considered. In each county there is diversity of conditions, and between different counties there is a still greater diversity. Any description of mountain conditions that takes into account only one kind of country must be partial and inadequate.

Mineral, timber, and water rights in the Appalachians are of great value. In most instances these rights are owned by outside interests. Large parts of the coal fields of West Virginia, Virginia, and Kentucky were bought for 50 cents an acre; \$5 was a very high price to pay. Timber was sold for prices almost as low, and water rights were practically given away. The natural resources of the mountains, where they are developed, have brought employment to the mountain people, but their real value has gone, or is going, to the capitalist outside of this region.

The people of the mountains vary as much as the country itself. There are in the entire region more than 4,300,000 persons, about 600,000 of whom live in cities of 2,500 inhabitants or more. Among other cities are Asheville, N. C., Birmingham, Ala., Chattanooga and Knoxville, Tenn., and Roanoke, Va. It is true there are feudists and moonshiners in some localities, but the region is also the home of some of the best-known statesmen, lawyers, ministers, physicians, teachers, and merchants in the United States as well as of hosts of law-abiding citizens in different walks of life. It is as difficult to find a typical mountaineer as it is to find a typical New Yorker or New Englander.



TYPE OF FARM DWELLING IN THE MOUNTAINS.



FARM AND BUILDINGS IN THE APPALACHIAN REGION.

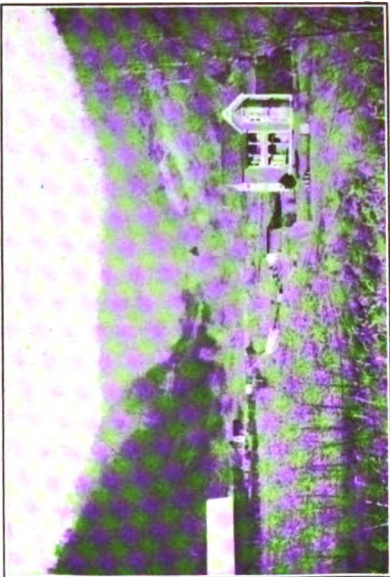
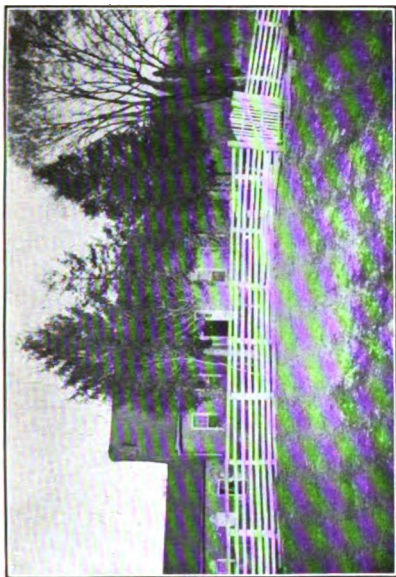
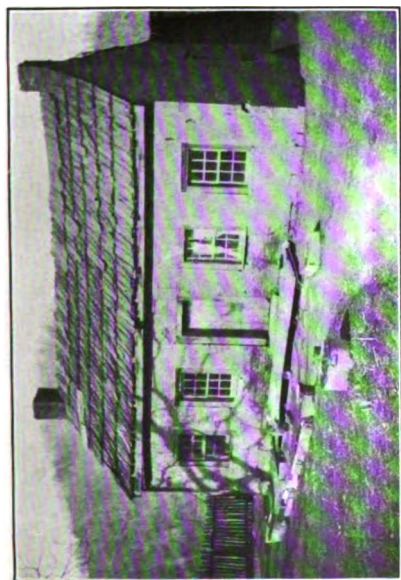


MOUNTAIN MILL STILL IN USE.

There are many other mills in this region with thoroughly up-to-date machinery, however.



ANOTHER TYPE OF MILL IN THE MOUNTAINS.



TYPES OF RESIDENCES IN THE APPALACHIAN REGION.

TABLE 1.—*Percentages of native whites of native parentage in the Appalachian counties.*

Per cent of total population.	Number of counties.								
	In Ala- bama.	In Georgia.	In Ken- tucky.	In North Carolina.	In South Carolina.	In Tennes- see.	In Vir- ginia.	In West Vir- ginia.	In the entire region.
50-52.....	2								2
53-54.....								1	1
54-56.....									
56-58.....									
58-60.....	1						1		2
60-62.....	1								1
62-64.....									
64-66.....						1			1
66-68.....					2		1		3
68-70.....					1		1		2
70-72.....	2	1					1		4
72-74.....	1						3		4
74-76.....		1			1		1	1	4
76-78.....							1		1
78-80.....	1				1			1	6
80-82.....	2	1		1			3		7
82-84.....						1	1		2
84-86.....				8		1	3	4	11
86-88.....	2	2	1	3		3	1	1	13
88-90.....	4	1	1	1		5	2	4	18
90-92.....		4		6		4	3	1	18
92-94.....	3	3	1			10	6	2	23
94-96.....	1	2	6	3		7	4	2	25
96-98.....	2	2	3	7		9	3	2	28
98-100.....	1	4	19	1		5	8	6	39
Total counties included.	22	21	31	25	5	46	40	25	216

¹ Avery County has been formed since 1910 from parts of Caldwell, Mitchell, and Watauga Counties.

² Of the 216 counties, 204 have higher percentages of native whites of native parentage than their respective States. The percentages for the States are: Alabama, 55.1; Georgia, 53.3; Kentucky, 51.4; North Carolina, 67.3; South Carolina, 43.7; Tennessee, 73.7; Virginia, 64.3; West Virginia, 85.3.

In origin these people do not differ materially from the rest of the people in the States in which these mountains lie. The stock is, in the main, Scotch-Irish, with a few communities of Dutch and of Huguenots.

Most of the farmers own their land. In no county does the percentage of farms operated by owners drop below 28 per cent, and it runs as high as 92.8 per cent in one county in Virginia. In the different States the percentages in the mountain counties vary as follows:¹

Percentage of farmers in mountain counties who own their farms.

	Per cent.
Alabama.....	30.8 to 76.3
Georgia.....	28.6 to 68.9
Kentucky.....	41.9 to 75.9
North Carolina.....	52.1 to 84.4
South Carolina.....	28.0 to 40.0
Tennessee.....	47.6 to 86.6
Virginia.....	58.9 to 92.8
West Virginia.....	42.4 to 90.0

Land values vary from practically nothing to about \$200 per acre. In 63 of the 216 counties the average value is less than \$10. In no case is the average more than \$50.

A large majority of the people are native whites, and of native parentage. In the 98 "mountain" counties 94.1 per cent are of this class. In the entire region this percentage is 83.6, while in the 8 States taken together it is only 65.3. Table 1 shows the variation among the 216 counties. It is interesting to note that there are 39 counties in which 98 per cent or more of the people are native whites of native parentage. A high percentage of native whites is usually a result of isolation.

ILLITERACY.

Of the native white people 10 years of age or over in 1910, 15.9 per cent in the 98 "mountain counties" were illiterate; 12.6 per cent in the 216 "Appalachian counties" were illiterate; and 9.3 per cent in the eight States were illiterate.

In interpreting these figures it must be remembered that those for the entire States include the "Appalachian" counties, and those for the "Appalachian" counties include the "mountain" counties. The rate of white illiteracy for the eight States, excluding the Appalachian counties, is therefore much lower than 9.3 per cent. Data to determine how much lower were not available at the time this study was made.

Table 2 shows the distribution of the 216 Appalachian counties among the native white population 10 years of age or over in regard to their percentages of illiteracy.

TABLE 2.—Percentages of illiteracy among native whites over 10 years of age in the Appalachian counties.

Per cent of native white illiterates 10 years of age and over.	Number of counties.							
	In Alabama.	In Georgia.	In Kentucky.	In North Carolina.	In South Carolina.	In Tennessee.	In Virginia.	In West Virginia.
0-2.....							1	
2-4.....	1						2	1
4-6.....						1	4	9
6-8.....		1					6	4
8-10.....	2	3	1	2		5	6	4
10-12.....	7	3	1	4	1	7	2	2
12-14.....	8	3	1	2		9	6	1
14-16.....		7	3	6	3	11	5	2
16-18.....	4	2	3	3	1	7	2	2
18-20.....			7	5		3	4	
20-22.....		2	5	2		1		
22-24.....			4	1		1		
24-26.....			2					
26-28.....			2					
28-30.....			1				1	
30-32.....								
32-34.....								
34-36.....			1				1	
Total counties included.	22	21	31	25	5	46	40	25
								1 215

¹ Of the 215 counties, 167 exceed the percentages of their respective States. The State percentages are: Alabama, 9.9; Georgia, 7.8; Kentucky, 10; North Carolina, 12.3; South Carolina, 10.3; Tennessee, 9.7; Virginia, 8; West Virginia, 6.4.

The illiteracy among native whites is used for comparison, because the figures for total illiteracy are so greatly complicated by the presence of large numbers of negroes throughout some parts of the eight

States and the relatively small number in the mountains. The people of the Appalachians are almost wholly native whites.

SCHOOL ENROLLMENT AND ATTENDANCE.

There are more than 1,500,000 children between the ages of 6 and 20, inclusive, in the Appalachian region. Of these, 65.9 per cent are reported as enrolled in school. In the 98 mountain counties, 72.3 per cent are so reported; in the eight States all together only 63.6 per cent.

These figures indicate that a larger proportion of the children are enrolled in school in the Appalachian region than in the entire eight States in general, and that in the mountain counties the enrollment is greatest of all. While there are many chances for inaccuracies in the figures themselves, those who know the section best are agreed that there is a high enrollment; the average attendance, however, is low. There is undoubtedly some duplication in enrollment; that is, the same child may be enrolled in two or more schools during the year. School district lines are not very definite, and a boy or girl who does not like one teacher may try another school. One boy told with glee of having been "fired" from three schools in two weeks' time. There is seldom any checking up of the school enrollment to prevent such a boy from attending and being enrolled in more than one school. It happens also more or less frequently that teachers fail to report the enrollment in their schools. The county superintendent usually makes an estimate. Influenced as he is by a very laudable desire to make his county compare favorably with other counties, one may readily see that his estimate will not be too low. But this practice is probably little more common in these counties than elsewhere in these States, and in many other States.

Table 3 shows the number of counties reporting the various percentages of enrollment.

TABLE 3.—*Number of children (6 to 20 years of age) enrolled from every 100 in the Appalachian countries.*

Enrolled from every 100 persons 6 to 20 years of age.	Number of counties.							
	In Alabama. ¹	In Georgia.	In Kentucky.	In North Carolina.	In South Carolina.	In Tennessee.	In Virginia. ¹	In West Virginia.
40-45.....	1	.....	.....	.....	.....	.....	.....	1
45-50.....	1	.....	.....	.....	.....	.....	3	4
50-55.....	2	1	.....	.....	.....	1	1	5
55-60.....	3	.....	2	2	.....	.....	3	11
60-65.....	6	2	3	3	2	2	13	33
65-70.....	3	3	2	4	3	5	12	37
70-75.....	3	7	2	5	.....	12	5	40
75-80.....	2	4	10	3	.....	10	1	39
80-85.....	.....	2	7	1	.....	9	1	22
85-90.....	.....	1	1	3	.....	4	1	10
90-95.....	.....	1	1	1	.....	3	.....	6
95-100.....	1	.....	.....	1	.....	.....	.....	2
Total counties included.	22	21	² 28	² 23	5	46	40	25
								210

¹ In Alabama and Virginia the school age begins at 7 years. In this table it has been reckoned from 6 years.

² In Kentucky 3 counties are not reported; and in North Carolina 4 counties, Avery, Caldwell, Mitchell, and Watauga, have been grouped and treated as 1 county.

The statement is frequently made that large numbers of children in the mountains are entirely out of reach of any school. Unfortunately, no figures are available in regard to this point. An estimate seems the best that can be done here. In the six counties personally investigated the county superintendents estimated that a total of 115 children were not, and had not been, within reach of any school; that is, according to their estimate, 115 children in six counties had no opportunity to attend any school. This represents the number of such children known to school authorities and is probably a very conservative estimate. If these six counties may be considered as representative, there would be in the 216 counties 4,167 children out of reach of school. This is only a little over twenty-seven one-hundredths of 1 per cent of the 1,510,286 children in the entire region. The estimate might be doubled, or even trebled, and still be less than 1 per cent.

That this is a serious condition no one would deny. It is not so bad, however, as is sometimes supposed. In most instances in the six counties visited plans were well in hand to meet the situation. In only one county was this not so. In that county the superintendent was definitely committed to the policy of first building schools in communities where the people wanted new buildings and where they were willing to help construct them. The children who have no schools are usually in communities where the people do not care.

In average attendance the mountain region does not report quite as well as the 8 States in general, and the 98 mountain counties report slightly less than the entire region. In the 8 States, 63.6 pupils, on the average, from every 100 enrolled, attend daily; in the 216¹ counties of the Appalachian region, 63.1 pupils; and in the 98² mountain counties, only 61.2 pupils.

TABLE 4.—*Numbers of children attending daily from every 100 enrolled in the Appalachian countries.*

Attending daily from every 100 enrolled.	Number of counties.								
	In Ala- bama.	In Georgia.	In Ken- tucky.	In North Caro- lina.	In South Caro- lina.	In Ten- nessee.	In Vir- ginia.	In West Vir- ginia.	In the entire region.
30-35.....				1					1
35-40.....				1					1
40-45.....	1		2			1	1		5
45-50.....	2	1	5						8
50-55.....	3	3	7	2	1	2	1		19
55-60.....	5	10	4	6	2		8	1	26
60-65.....	8	6	3	3	1	10	15	7	53
65-70.....	2	1	3	7		15	10	13	51
70-75.....	1			1	1	10	4	2	19
75-80.....				3		3		1	7
80-85.....				2			1	1	4
85-90.....						1			1
90-95.....						3			3
95-100.....						1			1
Total counties included.	22	21	³ 24	26	5	46	40	25	209

¹ Information from 6 of these counties in Kentucky is not available.

² Information from 5 of the 98 counties is not available.

³ In Kentucky information is not available from 7 counties.

Fortunately, in this case, we have also the figures for white attendance only. In the 8 States, the average daily attendance is 64 per cent of the total enrollment; in the 216 counties, 63.8 per cent; in the 98 counties, 61.3 per cent. These figures show the same tendency as those for the total attendance of white and colored.

The percentages of attendance of the Appalachian counties are shown in Table 4.

The low percentage of attendance is explained, in part at least, by Table 5, showing the irregularity of attendance in certain schools. The usual decrease in average attendance during the latter months should be noted.

TABLE 5.—*Monthly average attendance in certain 1-room schools in the southern Appalachians.*¹

States and counties.	Months.								
	First.	Sec- ond.	Third.	Fourth.	Fifth.	Sixth.	Sev- enth.	Eighth.	Ninth.
Alabama:									
Talladega.....	15	24	40	28	29	20	30	.....	.....
	28	32	35	27	19	15	14	.....	.....
North Carolina:									
Jackson.....	42	36	24	19	.....	.....	.....	.....	.....
	37	34	28	28	.....	.....	.....	.....	.....
Rutherford.....	14	26	26	20	.....	.....	.....	.....	.....
	25	27	30	23	21	.....	.....	.....	.....
Wilkes.....	19	21	22	.....	.....	.....	.....	.....	.....
	21	20	21	.....	.....	.....	.....	.....	.....
Graham.....	16	11	12	12	.....	.....	.....	.....	.....
	34	31	24	21	.....	.....	.....	.....	.....
Tennessee:									
Unicoi.....	20	18	17	15	12	13	.....	.....	.....
	23	24	23	20	19	18	.....	.....	.....
Virginia:									
Rockbridge.....	14	16	17	15	15	.....	.....	.....	.....
	6	6	12	12	15	.....	.....	.....	.....
Surry.....	26	24	19	14	16	14	15	15	15
	17	15	15	18	18	15	15	15	14
Warren.....	21	19	19	17	20	21	19	.....	.....
	24	22	19	21	23	20	24	.....	.....
Botetourt.....	11	19	30	23	18	11	.....	.....	.....
	15	19	26	25	23	19	17	.....	.....
Buchanan.....	35	36	32	26	25	26	.....	.....	.....
	27	26	18	20	23	.....	.....	.....	.....
West Virginia:									
McDowell.....	32	36	36	23	32	30	28	27	.....
	46	47	50	50	49	46	46	30	.....
Mercer.....	8	8	6	8	8	6	.....	.....	.....
	16	17	14	14	14	11	.....	.....	.....
Mineral.....	19	18	15	14	11	13	.....	.....	.....
	31	31	28	18	21	22	.....	.....	.....

¹ Taken from special reports of county superintendents relative to the monthly attendance in 1-teacher schools for the year 1912-13. Data from individual schools were submitted. The figures used here are those given for the first two 1-room schools that were listed by the county superintendents. Each county is reported from which information was available.

LENGTH OF SCHOOL TERM.

The average length of school terms in these 216 counties varies from 65 to 180 days. Table 7 shows this variation. For the rural schools of the United States the average term was 137¹ days in 1910. For the 8 States in which the Appalachians lie the average length of school term is 123² days; for the Appalachian counties it is 112²

¹ Bulletin, 1913, No. 8, U. S. Bureau of Education.

² These figures are averages of county and State averages, respectively.

days, and for the 98 mountain counties 104² days. The mountain schools are seriously deficient in this respect.

TABLE 6.—*Different lengths of school term in four mountain counties.¹*

Length of school term, in days.	Number of schools.			
	In Hancock County, Tenn., 1913.	In Hawkins County, Tenn., 1913.	In Wise County, Va., 1912.	In Jackson County, N. C., 1913.
Less than 80.....	2	1	5	2
80-85.....	1		5	20
85-90.....			2	
90-95.....	5		4	
95-100.....	2	2	6	
100-105.....	37	8	9	
105-110.....		13	1	1
110-115.....		4	7	
115-120.....		13	6	
120-125.....		46	16	2
125-130.....		16	1	
130-135.....				
135-140.....			1	1
140-145.....			10	6
145-150.....			1	1
150-155.....			1	
155-160.....				
160-165.....			6	6
165-170.....			3	
170-175.....				
175-180.....				
180 or more.....			5	1

¹ Blount and Cumberland Counties, Tenn., report a term of 110 days for all schools.

TABLE 7.—*Average lengths of school term in the Appalachian counties.*

Average length of school term, in days.	Number of counties.								
	In Alabama.	In Georgia.	In Kentucky. ¹	In North Carolina.	In South Carolina.	In Tennessee.	In Virginia.	In West Virginia.	In the entire region.
65-70.....						1			1
70-75.....				1					1
75-80.....									1
80-85.....	1	1		9		5			16
85-90.....	1	1		2	4	3			11
90-95.....				2		5			9
95-100.....	2	3			1	6	2		14
100-105.....	2	6	1	4		8			25
105-110.....	5	5		2		2	3	1	19
110-115.....	4	1	6	1		3	5	3	23
115-120.....			7	1		2	3	1	15
120-125.....	2		5	2		1	3	7	20
125-130.....	2		3			2	6	3	16
130-135.....		1	3			3	6	4	17
135-140.....	1		1			1	2	2	7
140-145.....		1	2	1		1	3	1	9
145-150.....	1						2		3
150-155.....							1		1
155-160.....						2			2
160-165.....								1	1
165-170.....						1			1
170-175.....								1	1
175-180.....									
180.....								1	1
Total counties included.	22	21	20	26	5	46	40	25	214

¹ Information not available from 2 counties in Kentucky.



A new two-room school valued at about \$1,000. Front and rear views.

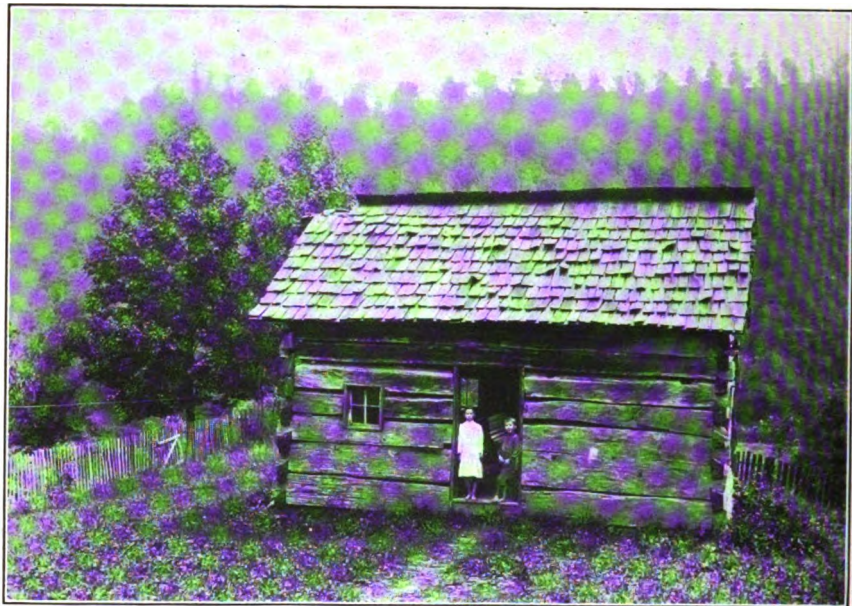


School building on the left is valued at about \$100; building on the right at about \$500.



Exterior and interior of one-room schoolhouse valued at about \$450.

TYPES OF SCHOOL BUILDINGS.



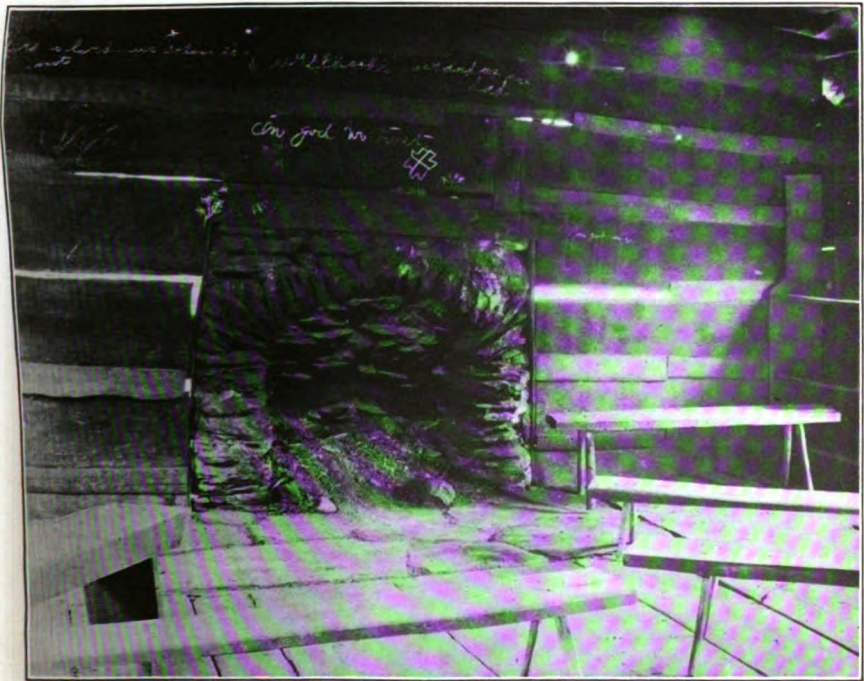
A LOG SCHOOLHOUSE VALUED AT \$75.



ANOTHER LOG SCHOOLHOUSE; ESTIMATED VALUE, \$120.



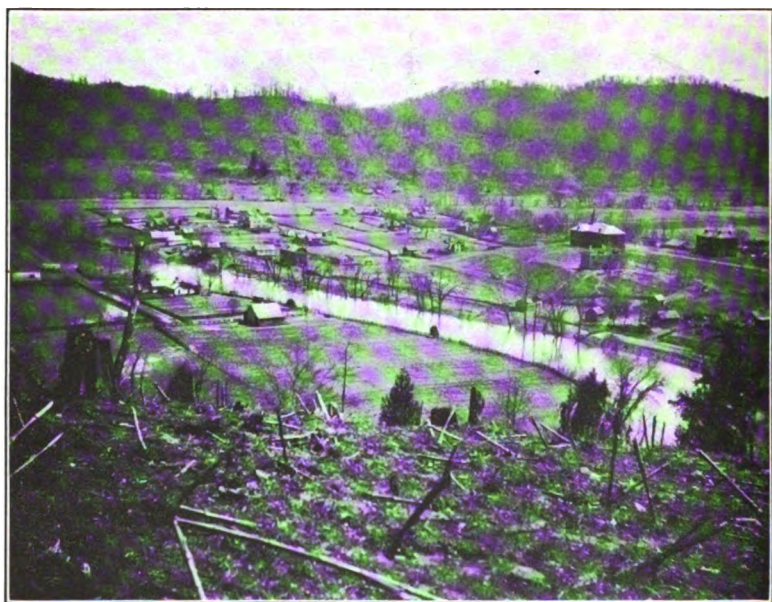
LOG SCHOOLHOUSE OF A TYPE FAST DISAPPEARING.



INTERIOR OF THE LOG SCHOOLHOUSE SHOWN ABOVE.



A MOUNTAIN CONSOLIDATED SCHOOL OF TWO ROOMS IN CLAY COUNTY, KY.



A PRIVATE SCHOOL (THE LARGE BUILDINGS ON THE RIGHT) IN A MOUNTAIN VILLAGE.

Not only does the length of the school term vary in different counties, but frequently it varies widely in the same county. Table 6 shows this variation for four counties. As this table indicates, a mere statement of average length of session has very little real significance, since it fails to show either the best or the worst conditions.

The length of school term is increasing all through the Appalachian region. State laws and increased taxation are both factors in bringing about this increase. In Hancock County the average term has been increased from three to five months in the last eight years. In every county investigated such an increase is taking place. This increase must be very great to make the school term of this region equal even to the average of rural schools throughout the United States.

AVERAGE NUMBER OF DAYS EACH CHILD ATTENDS.

Table 8 shows the variation in the number of days' schooling the average child receives in different counties.

TABLE 8.—Numbers of days the average child 6-20 attends in the Appalachian counties.

Days the average child attends school.	Number of counties.								
	In Alabama.	In Georgia.	In Kentucky.	In North Carolina.	In South Carolina.	In Tennessee.	In Virginia.	In West Virginia.	In the entire region.
20-25.....	1			2		1			4
25-30.....	1			1		1			3
30-35.....	3	4	1	3	3		4		18
35-40.....	5	3	2	3	1	4	4		22
40-45.....	6	3	4	4	1	4	3		25
45-50.....	1	7	5	4		5	7	1	30
50-55.....	4	8	6			10	10	6	39
55-60.....			2	4		4	7	5	22
60-65.....	1	1	2			3	2	3	12
65-70.....			1			6	1	6	14
70-75.....				1		5	2	2	10
75-80.....						1		2	3
80-85.....				1					1
85-90.....						2			2
Total counties included.	22	21	23	23	5	46	40	25	205

¹ Information is not available from 8 counties in Kentucky; and Avery, Caldwell, Mitchell, and Watauga Counties, in North Carolina, have been grouped together and treated as 1 county.

The three items of enrollment, attendance, and length of term are all brought together in showing the average number of days that each child attends school during a single year. In the entire eight States this average is 49.9 days; in the 216 counties of the Appalachian region it is 48.3; and in the 98 mountain counties it is 46. The figures show a slight lack of schooling for the children of the Appalachian region as compared with children throughout the States in which this region lies. When the comparison is made for white

children only, the lack of schooling in the mountains becomes larger in proportion to the number for white children outside.

Stated differently, the average 20-year-old person in the mountain region has attended school only long enough to complete the fourth grade of a city school. Making allowance for poor teachers, poor equipment, and the irregularity of attendance, the average mountaineer actually has not had schooling equivalent to that of a child who has completed the fourth grade in a city school. This is true of the present generation of young people in this region; the older people have received even less.

TEACHERS.

There are almost 25,000 teachers in the southern Appalachian region. It is impossible to make any definite statement concerning their training that will apply to all of the States. Methods of examination and certification vary so much that the percentage of first-grade certificates does not represent the same thing. In none of these eight States does a second-grade county certificate require more than the completion of the elementary school course.

In Georgia, Kentucky, North Carolina, South Carolina, and West Virginia, certificates are issued on State-wide examinations, in which the same questions are used for first, second, and third grade¹ certificates, while higher marks are required for the higher certificates. In Alabama certificates are issued on State-wide examination, with different questions for the applicants for different grades of certificates. Of the 3,416 teachers in the Appalachian section of the State, 1,066, or 31 per cent, hold third-grade certificates. The percentage in individual counties varies from 0 to 54.

Figures for the Appalachian counties in several States are indicated below. The percentages for those holding third-grade certificates only are given. In most instances this represents no further education than that which may be received in the schools in which the individuals concerned are teaching.

Teachers holding third-grade certificates.

	Alabama.	Georgia.	Kentucky.	South Carolina.	West Virginia.
Per cent of teachers holding third-grade certificate....	31	28	10	6	16
Variation in percentage among counties.....	0-54	0-91	0-42	1-11	6-27

While these percentages represent, in general, undesirable teachers, it must be borne in mind that the figures are not comparable between States. It is not at all certain that more of the teachers are undesirable in West Virginia than in South Carolina.

¹The third-grade is the lowest grade of certificate given.

In Virginia certificates are issued on State-wide examinations, the same for the first, second, and third grades, save that there are additional subjects for higher certificates. A little over 17 per cent of the teachers in the Appalachian counties hold third-grade certificates, and the percentage in individual counties varies from 0 to 39.

In Tennessee certificates in the past have been issued by the county superintendents on examinations prepared and graded by themselves. The law has now been changed, and State-wide examinations will be given there in the future.

The reports from Georgia, North Carolina, Tennessee, Virginia, and West Virginia show the number and percentage of teachers with some normal school training in those States. The facts in this respect are indicated below. This includes graduates and those who have had but a single summer school course as well. Very few are normal graduates.

	Georgia.	North Carolina.	Tennes- see.	Virginia. ¹	West Virginia.
Per cent of teachers in Appalachian counties with some normal training.....	15	39	5	15	7
Variation of this percentage among counties.....	0-49	7-93	0-26	0-39	0-42

¹ In Virginia these figures are for teachers holding first-grade or higher certificates.

Supervision of teachers in service, in the strict sense of the word, is very rare. In West Virginia a system of supervision by magisterial districts is being developed, and in Kentucky assistants to the county superintendents are appointed in some of the counties. Experiments in these particulars are being made in some of the other States, but in the main the entire supervision is given by the county superintendents.

In all of the States except North Carolina the county superintendent must be a legal resident of the county in which he serves. The county board of North Carolina may secure a superintendent from outside of the county or State. In any of the States it is practically impossible for the county superintendent to do more than visit each school once, or possibly twice, during the school year. The average number of white schools in an Appalachian county is 76. The average length of the school term is 112 days. By the time a superintendent has attended to necessary office work he is fortunate if he can spend more than two or three hours in each school during the entire year. Such visits as he is able to make, even in the case of competent men, can amount to little more than the most cursory inspection. In practice, at any rate, it seldom amounts to more.

Teachers' institutes of about a week's duration are very generally held in each county of the Appalachian regions, as in other counties in the States. These institutes are usually held during the summer,

with one or more instructors employed from outside of the county. The value of such institutes depends largely on the men employed.

Teachers' training courses in connection with the county high schools have been held in a few instances. Cumberland County, Tenn., may be given as an example. The teacher-training course in 1913 lasted four months. The work began in February, after the country schools closed, and was in charge of the county superintendent. The course was open to any teachers, or any who expected to become teachers. The work consisted largely of reviews of the elementary subjects, with emphasis on methods of instruction. Teachers were allowed to take a part of the normal work, and to spend the rest of their time in the regular high-school courses if they desired to do so. Over 30 of the teachers of the county enrolled.

In several counties throughout the Appalachian section private schools are giving special courses for training teachers. For example, in Blount County, Tenn., there were two private institutions doing normal work. In the other four counties visited there were no facilities for professional training.

Teachers' salaries vary a great deal, not only from county to county, but also within a single county. Table 9 shows the variation of the average annual salary in different counties, and Table 10 shows the variation of salaries within seven counties that were investigated in this respect.

TABLE 9.—Average salaries paid teachers in the Appalachian counties.

Average salary paid teachers for school year.	Number of counties.								
	In Alabama.	In Georgia.	In Kentucky.	In North Carolina.	In South Carolina.	In Tennessee.	In Virginia.	In West Virginia.	In the entire region.
\$100-\$120		4		4		1	1		9
\$120-\$140		3		6		1			11
\$140-\$160		5		4		8	2		19
\$160-\$180		1		3		9	3		16
\$180-\$200		1		3		3	6	1	14
\$200-\$220	3	1		4	1	10	2	4	25
\$220-\$240	4	3	1			1	5	1	15
\$240-\$260	3	1	7		4	3	8	3	29
\$260-\$280	2	1	10			3	5	5	26
\$280-\$300	2		7			1	3	2	15
\$300-\$320	3		3			1	1	2	10
\$320-\$340	1		2				2		5
\$340-\$360	1							3	4
\$360-\$380			1	1		2	1		5
\$380-\$400	1					1		1	3
\$400-\$420									
\$420-\$440		1							1
\$440-\$460						1	1	3	5
\$460-\$480	1								1
\$480-\$500									
\$500-\$520	1								1
Total counties included.	22	21	31	1 25	5	1 45	40	25	214

¹ One county in Tennessee reports an average salary of \$655, and 1 in North Carolina reports an average of \$56.

TABLE 10.—Salaries received by teachers in seven Appalachian counties.

Salaries for school year.	Teachers—						
	In Blount County, Tenn., 1913.	In Buchanan County, Va., 1913.	In Cumberland County, Tenn., 1913.	In Hancock County, Tenn., 1913.	In Hawkins County, Tenn., 1913.	In Jackson County, N. C., 1913.	In Wise County, Va., 1912.
\$40-\$50.....		1		1			
\$50-\$60.....		3					1
\$60-\$70.....		3	2				
\$70-\$100.....		2		4			3
\$100-\$120.....	1	3	2	4	1	36	3
\$120-\$140.....	7	8	13	5	7	2	5
\$140-\$160.....	28	3	18	33	8		8
\$160-\$180.....	41	1			27	2	13
\$180-\$200.....	30	11	21	1	30	3	11
\$200-\$220.....	5	4	1		12	1	8
\$220-\$240.....	1	1		3	24	5	8
\$240-\$260.....	1	9	1	1	11		9
\$260-\$280.....	1				2	10	7
\$280-\$300.....		3			2	3	6
\$300-\$320.....			1			5	2
\$320-\$340.....					1		2
\$340-\$360.....		3					8
\$360-\$380.....							2
\$380-\$400.....		1	4			4	22
\$400-\$420.....		3	1			1	3
\$420-\$440.....							11
\$440-\$460.....		1	1				1
\$460-\$500.....			1			1	6
\$500-\$600.....			1			3	8
\$600-\$800.....			1	2		1	3
\$800 and over.....		1	1			2	7

¹ Salaries of 12 teachers in Maryville not included.

The median of the county average is \$237. That is, in 108 counties the average salary is more than \$237, and in 108 counties the average salary is less than \$237. This figure is probably very nearly the average salary in this region. With an average term of 112 days, the average pay for a teacher is therefore very nearly \$2 per day. The nature of averages, however, is such that there are probably many more teachers who receive less than \$237 per year than there are who receive more than that. If we had six teachers receiving \$100 a year and one receiving \$1,000 a year, the average salary would be \$225 a year. The single high salary makes the average misrepresent the actual conditions. Table 10 shows how these averages are made up.

In most of the counties there is nothing to insure higher salaries or precedence to teachers holding higher-grade certificates. In many instances a holder of a third-grade certificate may make application for the same school for which the holder of a first-grade certificate has applied. In some instances holders of third-grade certificates actually receive higher salaries than some of the holders of first-grade certificates in the same county; or they are employed while holders of first-grade certificates can not get schools. This is true, of course, in counties in other sections. A few of the counties pay salaries according to the grade of certificate held; e. g., \$30 a month for a third-grade certificate, \$35 for a second-grade, and \$40 for a first-grade.

While salaries are very low, living expenses, too, are low. In Blount County, Tenn., board and room for the teacher costs from \$8 to \$12 per month; in Buchanan County, Va., from \$6 to \$16; in Cumberland County, Tenn., \$10 to \$15; in Hancock County, Tenn., \$5 to \$9; in Hawkins County, Tenn., \$10 to \$15; in Wise County, Va., \$10 to \$25 in some of the mining towns; and so on. These figures probably are representative of the entire region outside of the large cities.

Even with living expenses as low as they are, it is still true that many of the teachers do not receive a salary large enough to support them for the entire year. This means that they must work at something else, and if they have ability enough, to succeed at this other work, they soon stop teaching. Teaching is no more a profession in this section than in the rural portion of most other sections of the country.

In some localities living conditions are such that it is difficult to find teachers who will stay. This accounts for the shortness of some of the school terms and for the lack of schools in some communities. One county superintendent reported that he had solved this problem in his county by turning the school funds for these communities over to church mission boards, and asking them to provide teachers. Three of the six superintendents visited are trying to solve the problem by getting children from these communities to go elsewhere to school, and then return to their home counties to teach. Two of them report that they have found it difficult to get the young people back into these communities after they have once got away.

The average enrollment per teacher for counties varies from 26 to 70. For the entire region the average is 40. These averages are in few cases excessive. Table 11 shows the enrollment per individual teacher in six counties.

Throughout almost the entire region, outside of the cities, text-books must be furnished by the parents. Most of the States have laws providing for the purchasing of text-books for pupils whose parents can not buy them, but these laws are applied only in extreme cases. In very many of the schools the work is hampered by shortage of text-books.

Not only are the texts often inadequate, but also they are often ill-adapted to use in mountain schools. In one school in a place where wagons could not go children were found reading a story of the personal reminiscences of a street-car horse in New York City. A little girl was found crying on the way home from school because she had misspelled "bohea." A geography class was found naming the three highest peaks in the world, but the pupils did not know in what mountain system they lived nor into what ocean the water in the creek in front of the schoolhouse flowed.

TABLE 11.—*Numbers of pupils enrolled per teacher in six Appalachian counties.*

Pupils enrolled.	Teachers.					
	In Blount County, Tenn., 1913. ¹	In Buchanan County, Va., 1913.	In Cumberland County, Tenn., 1913.	In Hancock County, Tenn., 1913.	In Hawkins County, Tenn., 1913. ²	In Wise County, Va., 1912
10-15.....	2	5	1	1	.....	5
15-20.....	1	3	.....	.....	.....	.....
20-25.....	3	7	5	2	2	7
25-30.....	10	6	7	1	4	6
30-35.....	11	9	8	3	6	13
35-40.....	12	10	7	6	9	13
40-45.....	8	3	8	6	8	9
45-50.....	15	5	7	5	11	4
50-55.....	10	5	5	4	14	12
55-60.....	9	1	1	3	8	8
60-65.....	6	1	3	8	5	8
65-70.....	10	.....	2	3	9	7
70-75.....	1	.....	.....	.....	1	1
75-80.....	3	.....	.....	1	1	2
80-85.....	1	1	1	5	.....	4
85-90.....	1	.....	1	1	1	2
90-95.....	1	.....	.....	2	.....	.....
95-100.....	.....	.....	.....	.....	.....	4

¹ Enrollment not given for 12 teachers in Maryville, Blount County.² Enrollment is not available for 46 of the teachers in Hawkins County.

Globes, charts, and apparatus of all sorts must, in many instances, be furnished by the teacher, if they are to be used at all. In one of six counties investigated the teachers even had to buy fuel. The superintendent stated that he had required this in order to avoid overcharging and waste, and that he had raised salaries to cover the estimated expense. The average annual salary in that county was \$224 in 1912; out of this fuel was purchased.

Special work—sewing, cooking, woodwork, agriculture, and handwork of various kinds—is being undertaken in a good many of the counties. Buchanan County, Va., has started work in sewing in five schools and has a woodworking shop in connection with one of the two-room schools. Cumberland County, Tenn., has a potato club of about 40 members; a corn-acreage contest, limited to boys, and in charge of a corn demonstrator; a newly organized girls' canning club; and a farmers' cooperative store. Hawkins County, Tenn., has a boys' corn club of about 20 members and five or six debating societies. Wise County, Va., has sewing in some of the schools, a boys' corn club, debating societies rather well organized, taking in a good many one-room schools, and plans were laid for a school fair the following year. There are six high schools in the county and they have a thriving athletic association and an annual declamation contest. Jackson County, N. C., has a county commencement, a boys' corn club, and county declamation, recitation, and spelling contests. These are five of the seven counties investigated in regard to special activities of various kinds. The other two counties reported no special activities in connection with their school work.

Besides these special forms of school work, basket suppers are frequently given in the separate schools to raise funds for school purposes—special equipment, decorations, or libraries. Hawkins County reports \$1,486 raised during one year in this way.

School libraries are finding their way into most of this region. Figures are available from all of the States except North and South Carolina. There are 185 Appalachian counties in the six States from which these figures are available, and in only 23 of these counties are no school libraries reported. The number of libraries in a county varies from 1 to 164. In all, 4,089 libraries are reported. The average number of volumes in libraries is over 60 in three-fourths of the counties.

SCHOOLHOUSES.

The character of schoolhouses varies from the log-cabin type, without glass in the windows and with homemade benches, to the most modern of buildings, fitted with furniture and appliances of the very latest and best design. The average condition is probably below that of other sections of those States.

The value of buildings is the most available figure to represent their general condition, but it must be remembered that building material costs less in the mountains than in most sections of the country and that labor is often donated. The accompanying photographs should give some idea of what is meant by the various values.

Table 12 shows the average values of building by counties and Table 13 shows the value by individual buildings in six counties.

TABLE 12.—Average values of school buildings in the Appalachian counties.

Average value of school buildings.	Number of counties.								
	In Ala-bama.	In Georgia.	In Ken-tucky.	In North Caro-lina.	In South Caro-lina.	In Ten-nessee. ¹	In Vir-ginia.	In West Vir-ginia.	In the entire region.
Less than \$100.....			1				1		2
\$100-\$200.....				2		1	2	1	6
\$200-\$300.....		3	8	5		4	2	3	25
\$300-\$400.....	2	4	7	4		3	3	2	25
\$400-\$500.....	2	2	6	1		7	1	4	23
\$500-\$600.....	3	2	5	2		9	2	3	26
\$600-\$700.....	2	2	2	5		4	4	1	20
\$700-\$800.....	4	1		3		4	5		17
\$800-\$900.....	2	2	1		2	3	3	2	15
\$900-\$1,000.....	1	1		1	1	1		2	7
\$1,000-\$1,100.....	2						1		3
\$1,100-\$1,200.....		1				1	1		3
\$1,200-\$1,300.....				2		1	6	1	10
\$1,300-\$1,400.....		1			1		4	1	7
\$1,400-\$1,500.....		1						2	3
\$1,500-\$1,600.....						1	1		2
\$1,600-\$1,700.....									1
\$1,700-\$1,800.....	1						1	1	3
\$1,800-\$1,900.....	1							1	2
\$1,900-\$2,000.....				1	1			1	3
\$2,000-\$3,000.....	1					1	1		3
\$3,000 and over.....	1	1	1			3	2		8
Total counties included.	22	21	31	26	5	44	40	25	214

¹ Information is not available from 2 counties in Tennessee.

TABLE 13.—*Values of school buildings in six Appalachian counties.*

Value of school buildings.	Buildings.					
	In Blount County, Tenn., 1913.	In Bu- chanan County, Va., 1913. ¹	In Cum- berland County, Tenn., 1913.	In Han- cock County, Tenn., 1913.	In Haw- kins County, Tenn., 1913.	In Wise County, Va., 1912.
Less than \$100.....			8		1	2
\$100-\$200.....	13	1	5	6	5	7
\$200-\$300.....	14		6	4	7	7
\$300-\$400.....	24	5	9	6	19	4
\$400-\$500.....	23	1	6	4	12	4
\$500-\$600.....	12	9	8	5	7	11
\$600-\$700.....	2	9	1	7	5	1
\$700-\$800.....	1	16		2	13	1
\$800-\$900.....	3	2	2	2	3	3
\$900-\$1,000.....					2	2
\$1,000-\$1,100.....	2	2	2		5	3
\$1,100-\$1,200.....						
\$1,200-\$1,300.....		1		1	4	
\$1,300-\$1,400.....						
\$1,400-\$1,500.....	1					1
\$1,500-\$1,600.....			1	2		2
\$1,600-\$1,700.....		2				
\$1,700-\$1,800.....						
\$1,800-\$1,900.....						
\$1,900-\$2,000.....						
\$2,000-\$3,000.....		1			2	7
\$3,000 and over.....	2	1	2	2	3	11

¹ The values of 5 buildings in Buchanan County are not given.

Building is going on at a rapid rate. The figures given for Wise County, Va., are for the year 1911-12. During the year 1912-13 seven new schools were built, and in two instances involving consolidation. This consolidation is made possible by improved road conditions. In Buchanan County, Va., they have rebuilt nearly half of the school buildings in the last four years. Almost 78 per cent of the school funds of the county were used for building purposes in 1912. Cumberland, Hawkins, and Blount Counties, Tenn., are rebuilding at a rate sufficient to replace all school buildings in about 20 years. Hancock County has built nine new buildings in the last two years at an average cost of a little over \$500 each.

School consolidation is going on in most of the counties. In all of the six counties visited this is true to some extent. In Hawkins County, Tenn., 31 school buildings have been abandoned through consolidation in the past nine years. Just how far this movement can go in a very mountainous county is difficult to say. It seems reasonable to hope that eventually, with improved roads and by the use of transportation, the average school might be made to serve a territory of 12 square miles. If this can be accomplished, the number of white schools in these 216 counties will be reduced from 16,430 to 8,115. The actual number of schools serving different areas in three counties is shown below.

Extent of areas served by schools.

	Cumber- land. ¹	Hawkins.	Wise.
Schools serving—			
Less than 4 square miles.....	.....	5	36
4 to 8 square miles.....	6	87	17
8 to 12 square miles.....	24	9	40
Over 12 square miles.....	25	.....	9

¹ Cumberland is a large county with sparse population. In some sections of the county there are many square miles with few or no inhabitants.

In these counties, at any rate, there are as many schools that serve too small an area as there are that serve too large an area.

There are schools doing from one to four years of high-school work in most of the Appalachian counties. In only 47 of the 216 counties are no such schools reported. Many of the high schools in the mountains have courses of only one or two years above elementary work. In general the character of this high-school work is formal and academic. In some instances, however, definite attempts have been made to introduce agriculture, domestic science, and like subjects into the curriculum and to adjust the high-school work to real community needs.

The counties having no high schools in 1912 were situated mainly in Kentucky and Tennessee, where there were, respectively, 17 and 14 such counties. There were also 5 counties in Georgia, 1 in North Carolina, 4 in Virginia, and 6 in West Virginia with no high schools.¹

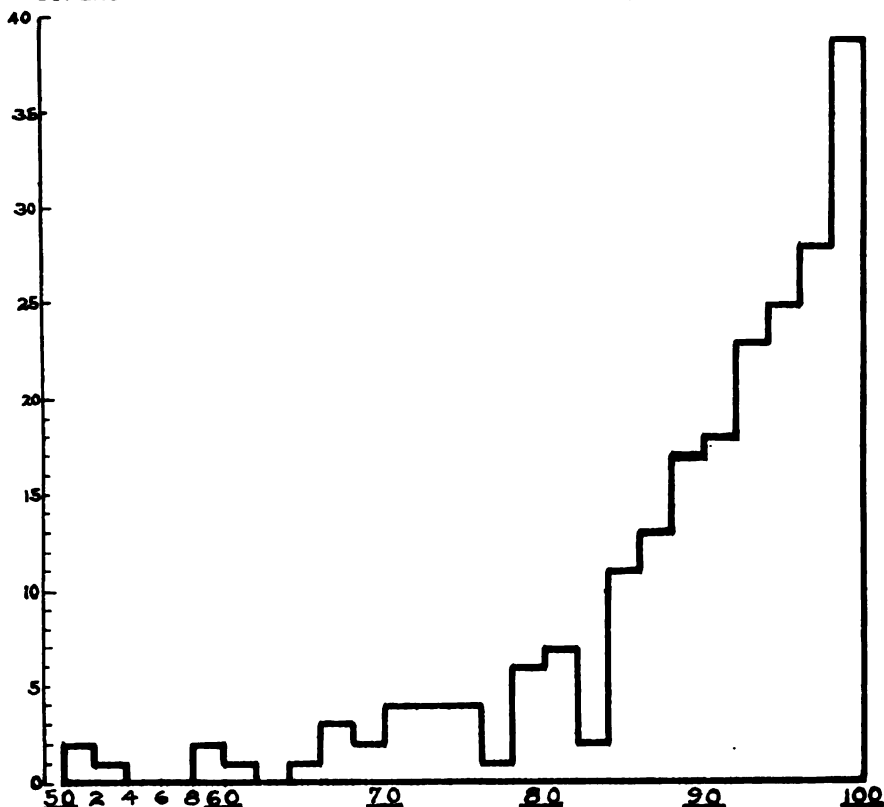
Table 14 shows the number enrolled in high school from every 1,000 children between the ages of 6 and 20, inclusive.

TABLE 14.—*Number of pupils enrolled in high school from every 1,000 children 6 to 20 years of age in the Appalachian counties of six States.²*

Enrolled in high school from every 1,000 children 6 to 20.	Counties.						In the Appalachian region in these States.
	In Alabama.	In Georgia.	In Kentucky.	In North Carolina.	In Tennessee.	In Virginia.	
0-5.....	.....	4	8	2	4	1	17
5-10.....	3	9	3	4	4	1	24
10-15.....	4	1	.....	4	3	3	15
15-20.....	4	2	.....	6	1	2	15
20-25.....	6	.....	.....	1	4	7	18
25-30.....	1	.....	1	1	4	2	9
30-35.....	1	.....	.....	1	2	5	9
35-40.....	2	.....	.....	2	2	5	11
40-45.....	.....	.....	.....	.....	2	3	5
45-50.....	.....	.....	.....	.....	2	3	5
50-100.....	1	.....	.....	.....	2	4	7
100 and over.....	.....	1	1	.....	.....	.....	2
Total counties included.....	22	22	30	22	44	40	180

¹ Since 1912 a few additional mountain counties have established high schools.

² This information is not available from the 30 Appalachian counties in South Carolina and West Virginia. In Georgia, 5 counties have no high school; in Kentucky, 17; in North Carolina, 1; in Tennessee, 14; in Virginia, 4; in the entire Appalachian region in these States, 41.



(a) Distribution of different percentages of total population that are native whites of native parentage. (See the last column of table 1.) Percentages are scaled on the horizontal line; the number of counties is scaled vertically. Thus, reading from left to right, there are two counties having between 50 and 52 per cent of their population composed of native whites of native parentage, one county having between 52 and 54 per cent so composed, no counties having between 54 and 58 per cent, and so on across to 39 counties having between 98 and 100 per cent native whites of native parentage.



(b) Percentage of total population of the 8 States that is composed of native whites of native parentage. (The portion representing native whites of native parentage is shaded.)

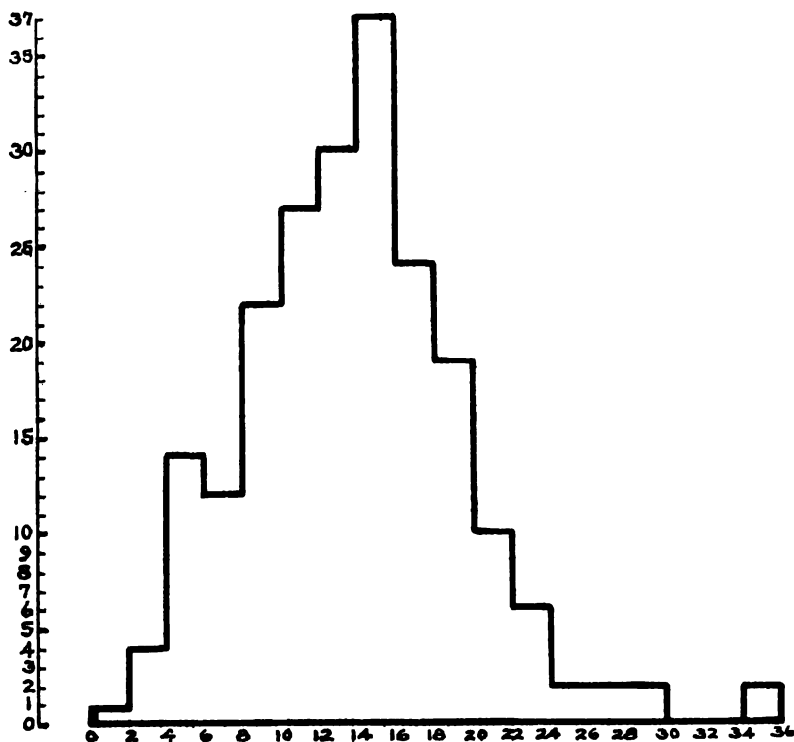


(c) Percentage of total population of the 215 Appalachian counties that is composed of native whites of native parentage.



(d) Percentage of the total population of the 97 "mountain" counties that is composed of native whites of native parentage.

NATIVE WHITES OF NATIVE PARENTAGE.



(a) Distribution of different percentages of illiteracy among native whites 10 years of age or over. (See last column of table 2.) Percentages are scaled on the horizontal lines; the number of counties having the different percentages is scaled vertically.



(b) Percentage of illiteracy among native whites throughout the entire 8 States (9.3).

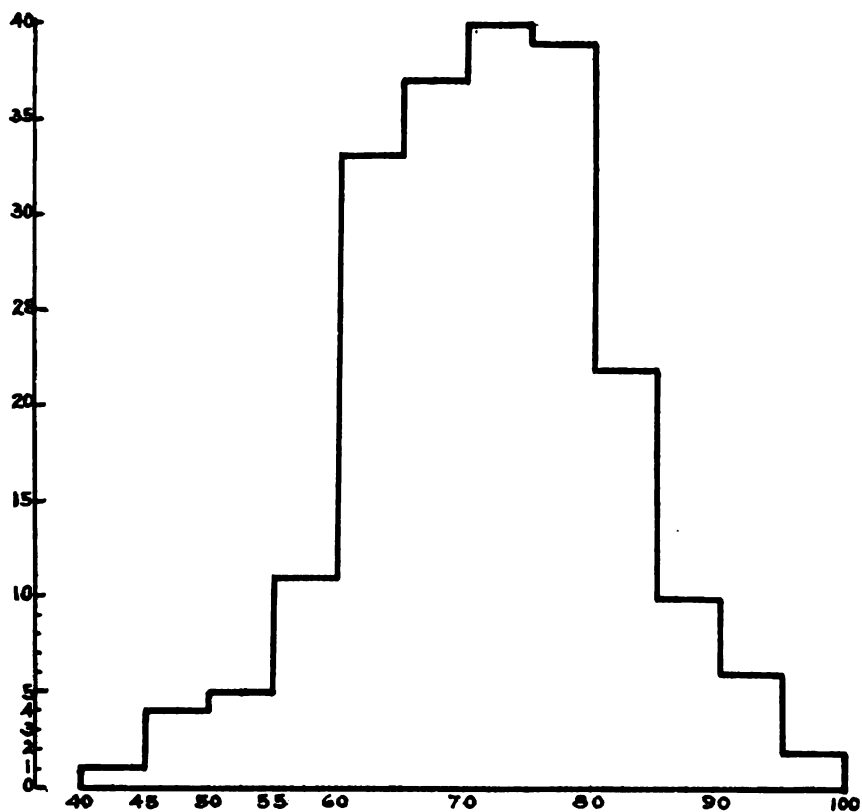


(c) Percentage of illiteracy among native whites throughout the 115 Appalachian counties (12.6).



(d) Percentage of illiteracy among native whites throughout the 97 "mountain" counties (15.9).

NATIVE WHITE ILLITERACY.



(a) Distribution of the different numbers of children enrolled from every 100 between the ages of 6 and 20, inclusive. (See last column of table 3.) The number enrolled from every 100 is scaled on the horizontal line; the number of counties enrolling the different numbers are shown vertically.



(b) Number enrolled in school from every 100 children throughout the 8 States (63.6).

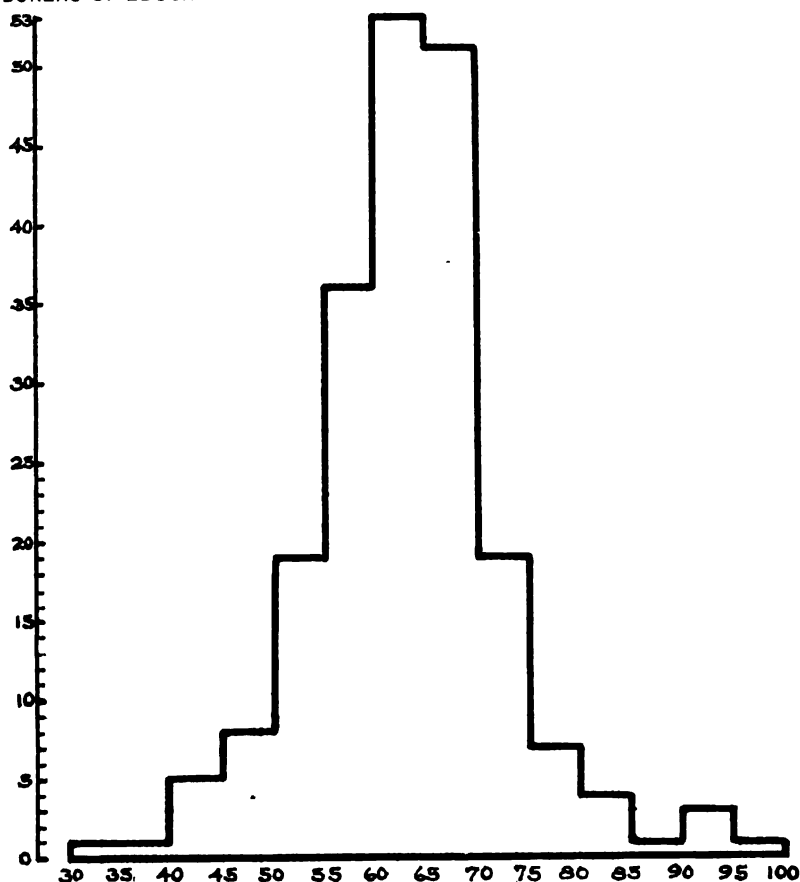


(c) Number enrolled in school from every 100 children throughout the Appalachian counties (65.9).



(d) Number enrolled in school from every 100 children throughout the "mountain" counties (72.3).

ENROLLMENT FROM EVERY HUNDRED CHILDREN.



(a) Distribution of the number of children attending daily from every 100 enrolled. (See last column of table 4.) The number of children attending daily is scaled on the horizontal line; the number of counties in which the different numbers of children attend daily is scaled vertically.



(b) Number of children attending school daily from every 100 enrolled throughout the 8 States (63.6).

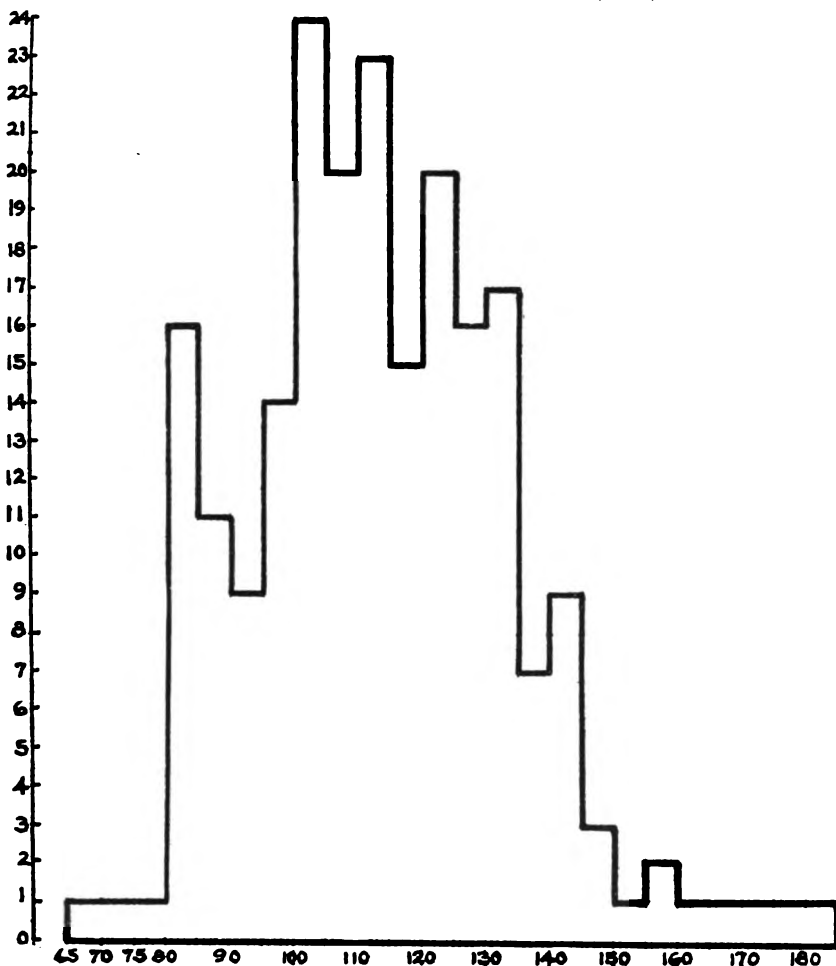


(c) Number of children attending school daily from every 100 enrolled throughout the Appalachian counties (63.1).



(d) Number of children attending school daily from every 100 enrolled throughout the "mountain" counties (61.2).

ATTENDANCE DAILY FOR EVERY 100 ENROLLED.



(a) Distribution of the different average lengths of annual school session. (See last column of table 7.) The different number of days of school session are scaled on the horizontal line; the number of counties having the different lengths of session is scaled vertically.

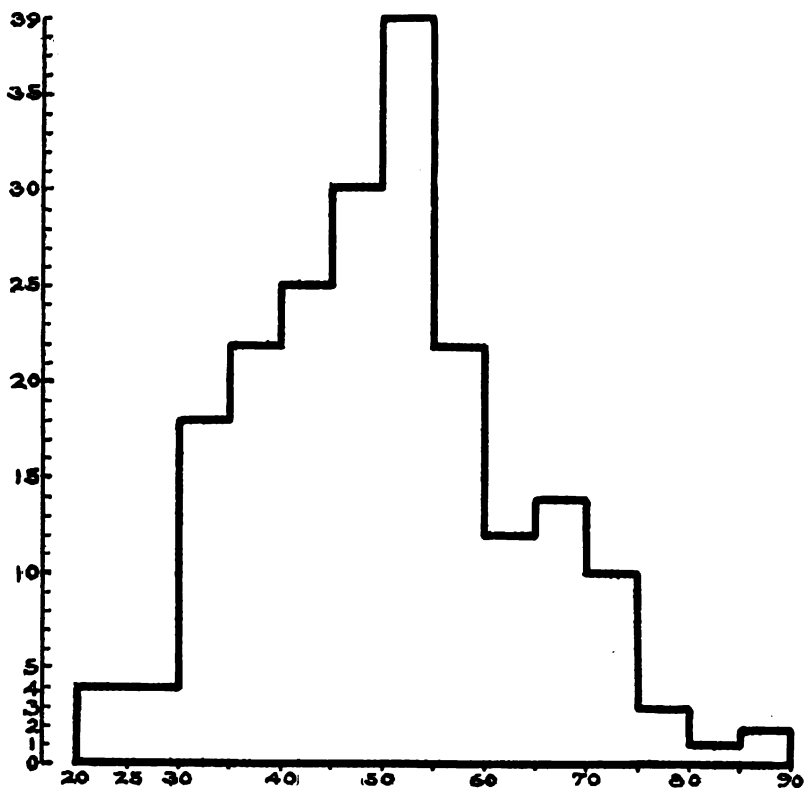
(b) Average length of school session throughout the rural schools of the United States (137 days).

(c) Average length of school session throughout the 8 States (123 days).

(d) Average length of school session throughout the Appalachian counties (112 days).

(e) Average length of school session throughout the "mountain" counties (104 days).

LENGTH OF SESSION.



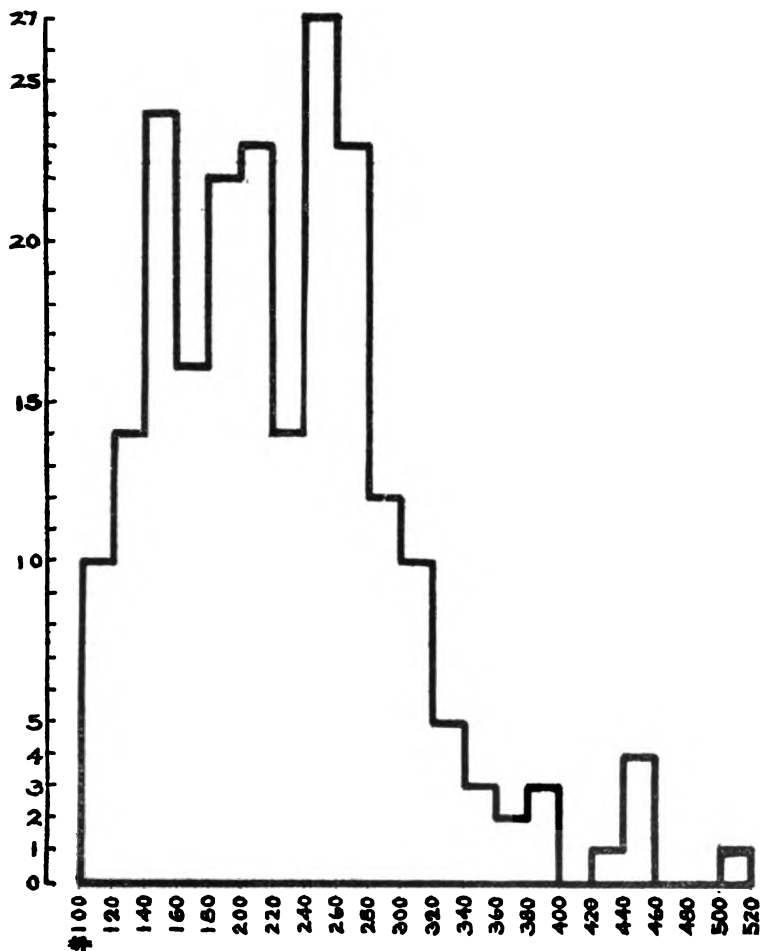
(a) Distribution of the different number of days the average child attends school. (See last column of table 8.) The different numbers of days attended by the average child are scaled on the horizontal line; the number of counties in which the average child attends for these numbers of days is scaled vertically.

(b) Number of days the average child in the 8 States attends school (49.9 days).

(c) Number of days the average child in the Appalachian counties attends school (48.3 days).

(d) Number of days the average child in the "mountain" counties attends school (46 days).

DAYS EACH 6-20-YEAR-OLD CHILD ATTENDS SCHOOL.



(a) Distribution of annual teachers' salaries. (See last column of table 9). Salaries are scaled horizontally; counties vertically.

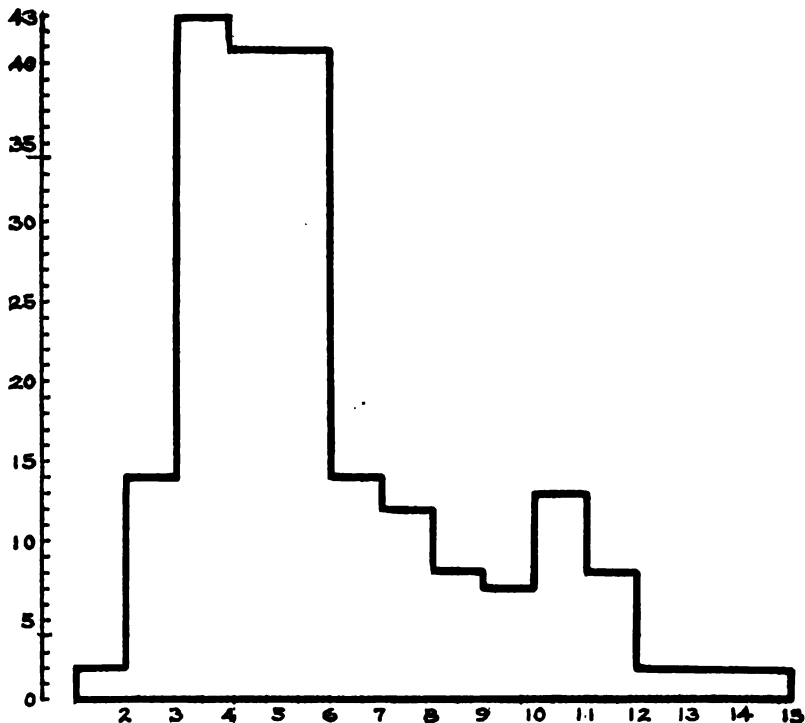


(b) Average annual salary of teachers throughout the United States in 1911 (\$466).



(c) Average annual salary of teachers throughout the Appalachian counties (\$237).

TEACHERS' SALARIES.



(a) Distribution of the different amounts expended for schools per child of school age. (See last column of table 15.) The amounts expended are scaled horizontally; the counties expending these amounts are scaled vertically.

(b) Amount spent for school purposes for the average child throughout the United States in 1911 (\$16.09).

(c) Amount spent for school purposes for the average child throughout the 8 States (\$6.60).

(d) Amount spent for school purposes for the average child throughout the Appalachian counties (\$6.41).

(e) Amount spent for school purposes for the average child throughout the "mountain" counties (\$4.72).

EXPENDITURES PER CHILD OF SCHOOL AGE.

SCHOOL EXPENDITURES.

The annual expenditure per capita of school population (6 to 20, inclusive) in the eight States is \$6.60. In the 216 counties of the Appalachian region it is \$6.41, and in the 98 mountain counties it is \$4.79.

In all statements involving dollars and cents, one must bear in mind that many of the necessities and comforts of life are cheaper in the mountain region than in many other sections of the country. Nevertheless, the disparity in expenditures for the mountain child and for the child throughout the remainder of the country is too great to be explained in this way, and the opportunities of the children for education in this section are less than elsewhere.

Table 15 shows the average expenditure per child in the Appalachian region by counties. It is worthy of note that there are 100 counties in which the annual expenditure for each child of school age is less than \$5 and that in two counties it is less than \$2. The contrast in educational conditions in this entire region is brought out by the fact that there are 29 counties expending over \$10 for each child, and two counties more than \$15.

TABLE 15.—Amounts expended per child (6-20 years of age) in the Appalachian counties.

Expenditure per child 6-20 per school year.	Counties.								
	In Ala- bama.	In Geor- gia.	In Ken- tucky.	In North Caro- lina.	In South Caro- lina.	In Ten- nessee.	In Vir- ginia.	In West Vir- ginia.	In the entire region.
\$1-\$2.....						2			2
\$2-\$3.....	2	7		3		1	1		14
\$3-\$4.....	7	9		7	3	14	3		43
\$4-\$5.....	11	4	10	4	2	6	4		41
\$5-\$6.....	1		17	5		10	8		41
\$6-\$7.....				2		6	6		14
\$7-\$8.....			1	1		4	6		12
\$8-\$9.....							3	5	8
\$9-\$10.....		1	1	1			1	3	7
\$10-\$11.....	1					2	5	5	13
\$11-\$12.....							1	7	8
\$12-\$13.....								2	2
\$13-\$14.....							1	1	2
\$14-\$15.....							1	1	2
\$15 and over.....						1		1	2
Total counties included.	22	21	129	123	5	46	40	25	211

¹ Information is not available from 2 of the counties in Kentucky; and Avery, Caldwell, Mitchell, and Watauga Counties in North Carolina have been grouped together and treated as 1 county.

The expenditure per child enrolled and the salary cost per child enrolled show about the same facts as the expenditure per child. The general facts concerning these three items are shown below.

School expenditures per child.

	Expendi- ture per child 6 to 20 years of age.	Expendi- ture per child enrolled.	Expendi- ture for salaries per child enrolled.
In the entire United States in 1911.....	\$16.09	\$23.56	\$14.06
In rural schools in the United States in 1910.....			10.60
In the 8 States.....	6.60	10.37	6.26
In the 216 Appalachian counties.....	6.41	19.58	16.41
In the 98 mountain counties.....	4.79	16.54	14.06

¹ Information from 2 counties is not available.

² Information from 1 county is not available.

The percentage of the total school expenditures paid to teachers varies greatly. The amount will, of course, vary as the amount of expenditures for new buildings and equipment varies. The 22 per cent reported paid to teachers in one county is too low even with great activity in building. Percentages over 90, reported in 12 counties, are high and indicate no building activities. The median for the 216 counties is 68.5 per cent, and probably represents the normal proportion for this region at this time. Table 16 shows the variation among the 216 counties in this respect. The 26 counties paying their teachers less than 50 per cent of the total school fund are probably those that are doing much building.

TABLE 16.—*Percentages of school expenditures that are paid to teachers in the Appalachian counties.*

Paid to teachers from total school expenditure.	Counties.								
	In Ala- bama.	In Geor- gia.	In Ken- tucky.	In North Caro- lina.	In South Caro- lina.	In Ten- nessee.	In Vir- ginia.	In West Vir- ginia.	In the entire region.
<i>Per cents.</i>									
20-25.....							1		1
25-30.....						1			2
30-35.....				1		1			2
35-40.....				1		3		1	6
40-45.....		1	1	1		4	2		8
45-50.....			1	4		6	5	1	18
50-55.....	2					3	5	2	19
55-60.....	3		1	5		8	3	8	27
60-65.....	5		2	3	1	3	10	7	26
65-70.....			7	4	1	3	7	5	27
70-75.....	3	2	9	3		2	2		21
75-80.....	3	4	5		2	5	4		23
80-85.....	3	6	4		1	2			16
85-90.....	1	8	1						10
90-95.....	2								2
95-100.....									
Total counties included..	22	21	31	26	5	145	40	25	215

¹ Information not available from 1 county in Tennessee.

PRIVATE SCHOOLS.

There are two widely prevalent misconceptions concerning private elementary schools in the mountain region. One is that private schools are the only educative agents in this region; the other is that the private schools are so good and so numerous as to be an excuse for poor public schools. Both ideas are based on an overestimation of the extent of private school work. There are people who claim that the private schools in the Appalachian counties do so much of the work done by public schools in some sections of the country that a study of the public schools alone is of little or no real value in determining the educational status of these counties.

Unfortunately, private school statistics are available only from the States of Alabama, Kentucky, Tennessee, and Virginia. These four States, however, may be considered as typical, and they actually represent 139 of the 216 Appalachian counties. In 54 of these 139 counties there are no private schools doing elementary or secondary work. In the 75 counties having private schools the percentage of the total elementary and secondary enrollment that is in private schools varies from three-tenths of 1 per cent to 16.6 per cent. Information for the States individually follows:

In Alabama 2.8 per cent of children in primary and secondary schools are enrolled in private institutions. Of the 22 counties in the Appalachian section of the State, only 9 report any private schools at all. In these 9 counties the variation in percentage of pupils enrolled in private schools is from 1.1 to 8.4.

In Kentucky 3.1 per cent of the total school enrollment is in private schools. There are private institutions doing elementary or secondary work in 19 of the 31 Appalachian counties, and the percentage enrolled in private schools in these 19 counties varies from 0.3 to 13.7.

In Tennessee 2.6 per cent of the total elementary and secondary enrollment is in private schools. There are private schools in 22 of the 46 Appalachian counties, and the percentage enrolled in private schools in these 22 counties varies from 2 to 16.6.

In Virginia 3.8 per cent of the total enrollment in schools below college rank is in private institutions. There are private schools in 25 of the 40 Appalachian counties, and the percentage enrolled in private schools in these counties varies from 0.3 to 14.1.

Where there are successful private schools, they draw students from more than one county. This accounts for the occasional high percentage of pupils in the private schools of a county.

These figures indicate that private elementary and secondary schools are not doing as much of the educational work in these States as is often supposed. They certainly are not taking, and

never can take, the place of the public schools. Their function would seem to be either to work in communities where public schools can not be maintained, as indicated previously, or to do work better than the public schools are doing, or to do work of a kind that public schools are not doing, or to supplement the public schools in such a way as to induce the people themselves to demand better public schools. In the last three cases the aim should be to do the work in such a way that it can be imitated by the public schools and that the work may be taken over by the public schools as soon as possible without loss of efficiency. It is unfortunate when the presence of a private school prevents the establishment or improvement of a public school that would do the same work.

This discussion, of course, concerns only elementary and secondary schools. Colleges, normal, professional, and industrial schools, both private and public, deserve special consideration that it is impossible to give in this brief study.

SUMMARY.

The following general conclusions in regard to educational conditions in the Appalachian region seem warranted by this study.

Conditions vary from the very worst to very nearly the best, and are constantly improving. New buildings are replacing the old; modern equipment is being introduced; the school term is being lengthened; special activities of many kinds are coming to supplement the traditional work; and public sentiment is aroused. The school enrollment, attendance, and term in the entire region are a little worse than throughout the other portions of the States in which the mountains lie; some counties are well above the average, and there are some counties that are very much below any reasonable standard.

Teachers' salaries are low, even when the low cost of living is taken into account. Most of the teachers have little or no professional training. Facilities for such training are increasing, and such training will necessitate higher salaries. Supervision is inadequate. Even good teachers need good supervision; young and untrained teachers, as most of the mountain teachers are, have especial need of assistance and suggestion.

The curriculum is often haphazard, and the texts are a painful misfit. State courses of study, in the States in which they exist, can not meet all the varying need of communities as diverse as the communities in this region. It is very rare for any other course of study to exist, much less be in force, in any locality. Most of the texts used are those written for city schools.

Special activities in the form of parents' clubs, school improvement associations, corn, potato, tomato, and canning clubs, manual

training, domestic science and domestic art, debating clubs, athletic meets, and school fairs are being introduced into some communities.

The expenditure for education is very much less than it should be. Nowhere is it as much as the people can afford. Even where rates of taxation are high, the valuation of property is often so low as to make the tax on actual values very low. In Tennessee, where the law requires assessment at full value, it is commonly stated that assessment is usually at about one-third of the value. In one county in that State the county clerk declares that the usual assessment is not more than one-sixth of the full value. But this condition of affairs is not peculiar to those counties or to the States in which they are.

Private schools are supplementing the work of the public schools in many places. Some of the private schools are doing only common-school work, and are doing it no better than the public schools can do it. On the other hand, many of them are doing more and better work than the public schools, and are working in places that the public school has failed to reach.

In many cases efforts at improvement lack definite aim and organization. This is true of the work both of public and of private schools. Some county superintendents follow the definite policy of building new schools in places where the people want them and are willing to help in their building, even though there may be other communities absolutely without school facilities. Private schools are sometimes located without reference to public schools, or even to compete with other private schools that are really meeting the needs of a community. Church schools have been transgressors in this regard. In some instances rather poor private schools are preventing the establishment of public high schools which might be made to serve the people much better.

Public sentiment in favor of good schools is developing; in the several State legislatures representatives from these counties usually favor increased levies or appropriations for schools, and other progressive education measures. This is a fundamental movement, and is the most hopeful aspect of the educational situation. When public opinion—representing appreciation of education, desire for better opportunities for the children, and belief in the ability of the people to help themselves—is fully awake, the conditions here will improve rapidly, as they have done elsewhere.

The way to help these people, the only effective way, is to help them to help themselves.

STATISTICS.

General information and conclusions have been given in the preceding pages; the detailed information on which these conclusions are largely based is given in the following tables. The information is given in columns, all the information for a single county appearing in the column under the name of that county. The relative standing of a county in respect to a single item may be determined by comparison with the general summary of that item in the preceding pages.

For example, suppose one wishes to find out how Loudoun County, Va., compares with other Appalachian counties in length of school term. Under the column headed "Loudoun County" in the tables of this appendix, opposite item "46" on the left-hand margin of the page, entitled "Length of session, in days," we find 152. That means that the length of the school term in Loudoun County is 152 days. Turning now to Table 7 we find that Loudoun has a longer term than any other Appalachian county in Virginia, that it is the only county having a school session between 150 and 155 days in length, and that there are only six counties in the entire Appalachian region that have longer school terms.

An attempt has been made to include 72 items of information concerning each of the counties. The same information is given for each entire State. Items 1 to 13 and 21 to 30, inclusive, are taken directly from the 1910 census. The other items are taken from the State reports of the respective States, or are calculated from figures taken from these reports or the 1910 census. In making calculations, all remainders have been ignored. The 1911 reports are used for the States of Georgia and Kentucky; for the other States the 1912 reports are used.

The school population is taken as the number of children between the ages of 6 and 20, inclusive. These figures are taken from the 1910 census, and are the same for all States. The legal school age in the respective States is not the same, and so figures from the State reports that have to do with school population are not directly comparable. This is particularly true of the percentage of children enrolled. The use of the uniform 6 to 20 population makes these figures from the different States comparable.

In Alabama and Virginia the school age begins at 7, so that the figures given for those States may not accurately represent the efforts and success of the school authorities of those States enrolling all school children. It does, however, represent what those States are doing for their children between 6 and 20, and is comparable with what other States are doing for the same group of children.

The latest report available has been used for each State. This has been done in order that the information given might be as nearly up to

date as possible, and might represent recent progress throughout the entire region. The use of these figures has involved one inaccuracy that is serious. School enrollment figures for 1911-12 have been compared directly with 1910 school population figures. The following reasons seem to justify this action:

First. The 1910 population figure really should be used with the 1911 enrollment, because the 1911 school year began in the fall of 1910, just after the census was taken; the 1911 enrollment represents the number of children enrolled from the total number of school children reported at the beginning of that school year—that is, in 1910. Thus for the States of Georgia and Kentucky no inaccuracy is involved, and in the other States there is only a real discrepancy of one year in the figures used.

Second. The change in population from year to year is relatively slight. The increase in the 6 to 20 population for the six States in question from 1900 to 1910 is given below, together with the approximate annual percentage of increase.

Population 6 to 20 years of age—Percentage of increase.

	Population 6 to 20 years of age.		Approximate annual percentage of increase.
	1900	1910	
Alabama.....	680,451	750,347	1.0
North Carolina.....	699,896	785,583	1.2
South Carolina.....	521,878	564,260	.8
Tennessee.....	726,405	738,478	.1
Virginia.....	654,284	697,649	.6
West Virginia.....	331,508	396,818	1.9

Third. Even this slight increase is added to the base on which percentages are reckoned. The error in the percentages themselves will be less. For example, if there is an error in the base of 1 per cent too little, a percentage of 50 per cent reckoned from this base will be only five-tenths of 1 per cent too high.

Fourth. Any inaccuracy involved in this action tends to make the percentage of enrollment higher than it really is, and thus to make school conditions throughout this region appear a trifle better in this respect than they really are. No injustice is done to any school by this action; rather, they are given a slight advantage.

Fifth. This inaccuracy is so small that the figures as given probably more nearly represent conditions as they now are than would figures reckoned from the older school reports.

All of these reasons seem to justify this action.

These tables have been submitted to the state departments of the respective States.

School statistics of Alabama.
[The mountain counties are in *italics*.]

	Entire State.	Blount County.	Calhoun County.	Cherokee County.	Clay County.	Cleburne County.	Cullman County.	De Kalb County.	Etowah County.	Fayette County.	Franklin County.	Jackson County.
1	Population:											
2	Total.....	21,456	39,115	20,226	21,006	13,385	28,321	28,261	39,109	16,248	19,369	32,918
3	White.....	20,270	28,357	17,617	18,358	12,671	27,753	27,484	32,305	14,382	17,527	29,666
4	Colored.....	1,186	10,757	2,609	2,648	1,714	568	877	6,804	1,866	1,842	3,252
5	Percent colored.....	5.5	27.5	12.9	12.6	5.3	1.9	3.0	17.4	11.5	9.5	9.5
6	Foreign white.....	35	228	15	110	63	859	40	352	8	104	21
7	Percent foreign.....	0.2	0.6	0.1	0.5	0.5	3.0	0.1	0.9	0	0.5	0
8	Native white of native parentage.....	1,177,459	27,671	17,533	18,305	12,530	25,346	27,223	31,527	14,336	17,317	29,541
9	Percent native white of native parentage.....	55.1	70.7	88.7	87.1	63.7	89.5	96.3	80.6	88.2	89.4	89.7
10	Urban.....	370,431	12,794	20,226	21,006	13,385	28,321	28,261	21,726	16,248	19,369	32,918
11	Rural.....	1,757,663	26,321	20,226	21,006	13,385	28,321	28,261	21,726	16,248	19,369	32,918
12	Of largest city or village.....	132,685	12,794	20,226	21,006	13,385	28,321	28,261	21,726	16,248	19,369	32,918
13	Rural, per square mile.....	34.5	41.8	35.1	34.2	23.6	77.1	36.0	40.1	25.3	29.9	25.9
14	Area, square miles.....	51,279	630	577	614	568	763	786	542	643	647	1,140
15	Average area (square miles) to each white school.....	11.0	9.0	8.3	8.9	9.9	7.9	8.0	8.2	8.6	8.6	10.6
16	Number of white schools.....	4,635	82	70	69	57	96	98	66	74	75	107
17	Schools necessary to provide 1 for each 12 square miles.....	4,274	55	53	49	48	64	66	46	54	52	95
18	Population, 6 to 20 years of age, per school.....	114	155	90	83	81	106	101	179	68	84	100
19	Population, 6 to 20 years of age, for each 12 square miles.....	175	144	144	139	101	162	157	289	108	129	123
20	Number of one-teacher schools.....											
21	Per cent of one-teacher schools.....	1,541,575	14,649	28,537	13,924	9,164	19,581	19,422	27,995	11,133	13,220	22,966
22	Population 10 years of age and over.....	352,710	4,664	2,769	1,983	1,744	1,949	2,238	4,560	1,943	2,506	4,325
23	Illiterate.....	26.9	14.7	16.3	19.9	13.7	10.0	11.5	16.3	16.6	19.0	18.8
24	Native white 10 years of age and over.....	890,279	20,310	12,559	12,600	8,602	18,349	18,779	22,496	9,850	11,739	20,673
25	Illiterate.....	84,768	1,824	2,084	1,303	1,388	1,813	2,051	2,913	1,373	1,949	3,519
26	Percent of illiterate.....	9.9	10.7	17.2	10.3	16.1	9.9	10.9	12.9	13.9	16.6	17.0
27	Population 10 to 20 years of age.....	526,505	9,774	4,852	5,217	3,355	7,243	7,115	9,344	4,004	4,882	8,583
28	Illiterate.....	88,437	1,246	727	475	366	483	509	1,099	412	693	1,358
29	Percent of illiterate.....	16.4	12.7	15.0	9.1	10.9	6.7	7.2	11.8	10.3	14.2	16.6
30	Population 6 to 20 years of age.....	750,357	12,644	7,073	7,593	4,881	10,403	10,385	13,305	5,875	7,014	11,774
31	School enrollment (public).....	420,288	6,788	4,071	7,260	3,360	7,554	7,138	8,368	4,006	5,294	6,057
32	Number enrolled from each 100 of 6 to 20 years of age.....	56.0	49.7	57.5	56.6	68.8	72.6	68.7	62.8	78.5	76.4	51.4
33	White enrollment.....	284,016	5,765	3,796	6,785	3,253	7,416	1,960	4,632	4,147	5,020	5,770
34	Colored enrollment.....	136,272	1,023	281	475	106	138	1,198	1,435	459	274	287
35	Number of private schools.....	80	0	1	0	0	4	0	0	0	0	0
36	Private school enrollment, elementary and high schools.....	12,593	0	56	0	0	452	0	0	0	0	0
37	Public and private school enrollment.....	432,791	148	4,127	6,785	3,253	8,006	1,960	4,632	4,147	5,020	5,770
38	Per cent enrolled in private schools.....	2.8	2.1	1.3	0	0	5.6	0	0	0	0	0

PUBLIC SCHOOLS.

39	Average attendance.....	252,528	3,154	3,931	2,199	2,989	1,644	4,568	4,145	3,150	3,200	2,472	3,679
40	White.....	172,066	3,070	3,188	1,999	2,741	1,598	4,481	4,037	2,900	2,871	2,324	3,494
41	Colored.....	80,762	84	743	200	245	76	87	88	250	329	138	185
42	Number attending daily in each 100 enrolled.....	80.1	00.0	57.9	54.0	41.1	48.9	60.4	58.0	61.6	68.4	46.6	60.7
43	White.....	65	59	65	52	40	48	60	58	61	66	46	60
44	Colored.....	59	64	72	71	52	72	63	44	58	71	50	64
45	Number attending daily in each 100 of 6 to 20 years of age.....	33.6	46.8	28.8	31.1	39.3	33.7	48.9	39.9	38.6	54.4	35.2	31.2
46	Length of session, in days.....	116	108	138	101	105	112	114	108	126	100	82	97
47	Number of days each child enrolled attended.....	68.7	64.8	79.9	54.5	43.1	54.7	68.8	62.6	77.6	68.4	40.2	58.8
48	Number of days each child 6 to 20 years of age attended.....	33.9	33.7	39.7	31.4	41.2	37.7	50.0	42.0	48.6	54.4	28.8	30.2
49	Number of teachers.....	9,442	108	136	82	103	69	111	117	84	97	112	141
50	Enrollment per teacher.....	26,417	48	49	70	48	48	68	61	60	47	47	43
51	Teachers' salaries.....	\$2,811,082	\$26,417	\$52,357	\$17,704	\$30,812	\$15,288	\$33,929	\$32,632	\$43,502	\$22,006	\$23,865	\$33,668
52	Average annual salary.....	\$297	\$244	\$384	\$215	\$299	\$221	\$305	\$278	\$517	\$233	\$213	\$238
53	Teachers with normal or college training ¹												
54	Per cent of teachers with normal or college training ¹												
55	Teachers holding third-grade or temporary certificates.....	3,428	32	36	45	46	31	60	31	22	21	38	58
56	Per cent of teachers holding third-grade or temporary certificates.....												
57	Total school expenditures.....	\$3,547,955	\$30,440	\$65,140	\$19,869	\$37,586	\$17,763	\$39,070	\$38,949	\$46,233	\$27,076	\$31,090	\$41,122
58	Amount received from State.....	\$2,004,945	\$23,475	\$38,224	\$17,876	\$19,253	\$12,672	\$28,049	\$27,134	\$34,233	\$15,000	\$19,830	\$31,856
59	Per cent received from State.....												
60	Expenditure per child enrolled.....	\$3.44	\$5.79	\$9.59	\$4.87	\$5.17	\$5.29	\$5.17	\$5.44	\$5.40	\$5.83	\$5.98	\$6.75
61	Expenditure per child enrolled 6 to 20 years of age.....	\$4.72	\$3.84	\$4.77	\$2.80	\$4.95	\$3.64	\$3.75	\$3.74	\$3.39	\$4.60	\$4.51	\$3.49
62	Per cent of expenditures used for teachers' salaries.....	79.2	86.7	80.6	89.1	81.9	85.9	86.8	83.7	90.1	83.4	76.3	81.8
63	Tuition per child enrolled.....	\$0.68	\$5.01	\$7.30	\$4.33	\$4.23	\$4.04	\$4.48	\$4.55	\$5.18	\$4.86	\$4.60	\$4.64
64	Tuition per child enrolled 6 to 20 years of age.....	\$3.73	\$3.25	\$3.83	\$2.19	\$3.85	\$3.12	\$3.25	\$3.13	\$3.25	\$3.53	\$3.39	\$2.85
65	Value of school buildings.....	\$7,063,319	\$42,476	\$146,300	\$36,225	\$69,130	\$34,580	\$59,175	\$63,100	\$85,000	\$31,600	\$41,075	\$57,745
66	Average value of school building.....	\$1,745	\$498	\$1,905	\$576	\$710	\$710	\$857	\$740	\$1,769	\$598	\$775	\$598
67	Number of school libraries.....	188,300	285	248	411	482	123	690	115	100	355	630	1,080
68	Number of volumes in libraries.....	188,300	285	248	411	482	123	690	115	100	355	630	1,080
69	Average number of volumes.....	188,300	285	248	411	482	123	690	115	100	355	630	1,080
70	Circulating libraries used.....												
71	Enrolled in high school.....	18,794	68	258	65	433	63	201	159	211	33	172	146
72	Enrolled in high school in every 100 of population 6 to 20 years of age.....	2.52	.85	1.88	.91	5.70	1.29	1.93	1.53	1.58	0.56	2.45	1.24

¹ No data.² In country only.

We have a few circulating libraries. Talladega County in 1912 had 16 best libraries and 10 school libraries on the circulating plan. During the present year 10 have been added, making 38.—(Extract from a letter from State superintendent of education dated July 2, 1913.)

³ Public and county high schools; there are also 2,900 pupils in private and denominational secondary schools, 1,082 in the 9 State agricultural schools, and 2,731 doing academic work in normal schools. This makes a total of 26,547 pupils in the State doing high-school work.

School statistics of Alabama—Continued.

[The mountain counties are in *italics*.]

	Jefferson County.	Line-stone County.	Madison County.	Marion County.	Marshall County.	Morgan County.	St. Clair County.	Shelby County.	Talladega County.	Walker County.	Washington County.
Population:											
1 Total.....	226,476	26,880	47,041	17,485	28,553	33,781	20,715	26,949	37,921	37,013	13,855
2 White.....	135,839	16,625	28,146	16,975	27,188	26,581	17,083	19,308	19,577	30,475	12,801
3 Colored.....	90,617	10,255	18,894	46.5	1,365	8,198	3,632	7,641	18,344	6,538	54
4 Per cent colored.....	40.0	43.9	40.2	3.0	4.8	24.3	17.5	28.4	48.1	17.7	0.4
5 Foreign white.....	7,832	82	196	8	14	251	153	109	143	466	35
6 Per cent foreign.....	3.5	0.3	0.4	0.4	0.5	0.7	0.7	0.4	0.4	1.3	0.3
7 Native white of native parentage.....	116,830	16,318	27,699	16,931	27,124	24,715	16,843	18,928	19,321	29,362	12,632
8 Per cent native white of native parentage.....	51.6	60.7	58.5	96.8	95.0	73.2	81.3	70.2	51.0	79.4	98.4
9 Urban.....	143,594	0	7,611	17,485	28,553	23,445	20,715	26,949	5,834	21,509	0
10 Rural.....	82,927	26,880	39,423	7,611	1,544	6,118	2,083	1,079	3,844	34,504	13,855
11 Of largest city or village.....	132,683	1,715	48.0	23.5	47.4	39.6	32.1	38.4	47.3	41,471	1,111
12 Area, square miles.....	1,353	366	811	745	902	587	845	806	473	774	630
13 Average area (square miles) to each white school.....	6.6	8.6	11.4	9.1	11.1	7.6	8.9	9.9	12.3	7.4	9.5
14 Number of white schools.....	17	67	72	82	84	76	72	81	62	105	68
15 Schools necessary to provide 1 for each 12 square miles.....	15	13	16	14	15	14	14	15	12	63	53
16 Population, 6 to 20 years of age, per school.....	257	136	182	80	120	123	68	92	123	105	71
17 Population, 6 to 20 years of age, per school, for each 12 square miles.....	704	183	244	106	206	230	141	141	224	194	89
18 Number of one-teacher schools.....											
19 Per cent of one-teacher schools.....											
20 Population 10 years of age and over.....	174,724	18,981	34,697	11,685	19,521	24,621	14,523	19,033	26,777	25,730	8,557
21 Illiterate.....	23,350	5,460	7,963	1,664	2,473	3,772	2,103	3,884	6,358	4,184	1,074
22 Per cent of illiterate.....	13.4	28.8	23.0	14.2	12.7	15.3	14.5	20.3	23.7	16.2	12.6
23 Native white 10 years of age and over.....	93,713	11,571	20,483	11,336	18,535	18,179	11,733	13,409	13,972	20,316	8,475
24 Illiterate.....	3,408	1,449	2,391	1,547	2,101	1,669	1,359	1,686	1,581	2,599	1,048
25 Per cent of illiterate.....	3.6	12.5	11.7	13.6	11.3	9.2	11.6	12.6	11.3	12.8	12.4
26 Population 10 to 20 years of age.....	47,860	6,775	11,893	4,617	7,232	7,944	5,353	6,682	9,886	6,889	3,272
27 Illiterate.....	3,249	1,833	2,004	409	601	708	589	1,019	1,839	906	229
28 Per cent of illiterate.....	6.8	27.1	16.9	8.9	8.3	10.0	11.0	15.2	18.6	10.4	8.0
29 Population 6 to 20 years of age.....	66,868	9,670	16,595	6,727	10,644	11,277	7,652	9,616	14,150	12,641	4,729
30 School enrollment (public).....	42,392	4,319	8,439	4,125	7,582	7,175	4,107	5,666	9,057	7,634	3,499
31 Number enrolled from each 100 of 6 to 20 years of age.....	83.5	44.6	51.1	61.3	71.9	62.7	53.1	58.9	64.0	60.2	73.9
32 White enrollment.....	28,953	4,094	5,393	4,005	7,498	5,602	3,945	4,413	4,340	6,724	3,499
33 Colored enrollment.....	13,399	225	3,040	90	84	1,573	162	253	4,717	91	0
34 Number of private schools.....	1,102	399	165	0	425	0	0	0	740	85	0
35 Private school enrollment, elementary and high schools.....	43,494	4,718	8,604	8,007	8,007	7,719	7,719	7,719	7,719	7,719	7,719
36 Public and private school enrollment.....	43,494	4,718	8,604	8,007	8,007	7,719	7,719	7,719	7,719	7,719	7,719
37 Per cent enrolled in private schools.....	2.5	8.4	1.9	1.1	5.3	0	0	0	0	0	0

PUBLIC SCHOOLS.

PUBLIC SCHOOLS.										
30	Average attendance.....	29,077	4,863	2,481	4,798	3,972	3,084	3,486	4,866	1,949
31	White.....	20,970	3,096	2,426	4,735	3,152	2,956	3,256	4,800	1,949
32	Colored.....	8,107	1,767	65	63	1,673	102	1,233	4,717	1,949
33	Number attending daily in each 100 enrolled.....	88.56	87.6	60.1	63.2	56.3	74.3	63.2	63.6	66.6
34	White.....	72	57	59	63	66	74	62	67	66
35	Colored.....	60	53	61	75	52	60	54	63	63
36	Number attending daily in each 100 of 6 to 20 years of age.....	43.4	29.2	36.7	45.6	38.2	39.9	37.2	34.3	41.2
37	Length of session, in days.....	147	127	87	113	122	108	108	123	96
38	Number of days each child enrolled attended.....	90.6	63.6	52.2	71.4	67.9	68.2	68.2	60.4	90
39	Number of days each child 6 to 20 years of age attended.....	63.7	37.0	31.9	50.2	42.4	43.0	40.1	42.0	37.0
40	Number of teachers.....	977	170	104	130	163	104	124	150	184
41	Pupils per teacher.....	43	65	39	57	48	39	45	60	42
42	Teachers' salaries.....	\$450,815	\$37,913	\$22,239	\$32,980	\$49,163	\$28,008	\$36,003	\$46,642	\$19,473
43	Average annual salary.....	\$461	\$303	\$213	\$252	\$321	\$270	\$290	\$310	\$237
44	Per cent of teachers with normal or college training.....	53	42	33	40	47	40	47	74	32
45	Teachers holding third-grade or temporary certificates.....	55	53	32	30	30	38	37	49	39
46	Per cent of teachers holding third-grade or temporary certificates.....	56	53	32	30	30	38	37	49	39
47	Total school expenditures.....	\$724,610	\$83,586	\$29,599	\$40,644	\$50,561	\$33,086	\$39,548	\$37,191	\$23,634
48	Amount received from State.....	\$190,160	\$39,800	\$15,078	\$20,242	\$30,358	\$20,079	\$21,919	\$34,792	\$16,421
49	Per cent received from State.....	26	95	61	70	60	60	63	60	61
50	Expenditure per child enrolled.....	\$17.11	\$8.12	\$7.17	\$5.86	\$7.04	\$5.43	\$6.96	\$4.31	\$7.16
51	Per cent of expenditures used for teachers' salaries.....	60.1	41.3	34.0	38.5	44.1	34.3	34.1	31.5	33.2
52	Tuition per child enrolled.....	62.2	8.4	75.1	8.1	97.2	9.0	9.0	8.5	8.5
53	Value of school buildings.....	\$14,744	\$3,438	\$5,385	\$4,086	\$4,526	\$3,774	\$4,774	\$3,239	\$4,095
54	Value of school buildings.....	\$1,846,682	\$98,705	\$27,645	\$37,019	\$103,500	\$11,015	\$44,400	\$63,470	\$40,705
55	Average value of school building.....	\$8,890	\$1,077	\$399	\$599	\$2,200	\$702	\$599	\$870	\$1,082
56	Number of school libraries.....	7	16	4	12	11	1	1	16	93
57	Number of volumes in libraries.....	35,443	2,533	240	1,300	1,260	128	769	1,253	718
58	Average number of volumes.....	499	158	60	108	112	128	109	78	178
59	Circulating library valued.....	2,670	435	97	227	281	164	306	212	184
60	Enrolled high school.....	3.99	2.62	1.44	2.15	2.49	2.14	3.18	1.49	3.89
61	Enrolled in high school in every 100 of population 6 to 20 years of age.....	72	62	44	53	56	53	56	53	56

! No data

School statistics of Georgia.

[The mountain counties are in *italics*.]

	Entire State.	Bartow County.	Catoosa County.	Chattooga County.	Cherokee County.	Dade County.	Dawson County.	Fannin County.	Floyd County.	Foreyth County.	Gilmer County.
Population:											
1 Total.....	2,609,121	25,388	7,184	13,008	16,661	4,139	4,686	12,574	36,736	11,940	9,237
2 White.....	1,431,802	19,039	6,708	11,154	15,493	3,848	4,534	12,574	26,248	10,842	9,166
3 Colored.....	1,176,787	6,348	476	2,454	1,168	261	1,52	12,412	10,482	1,098	0.8
4 Per cent colored.....	46.7	29.7	6.6	18.0	7.0	7.0	3.2	1.3	28.5	9.2	8.6
5 Foreign white.....	15,072	53	149	15	18	7	5	5	162	2	0
6 Per cent foreign white.....	0.6	0.2	2.1	0.1	0.1	0.2	0.1	0.4	0.4	0.1	0.1
7 Native white of native parentage.....	1,391,058	18,863	6,181	11,113	15,405	3,811	4,525	12,373	25,762	10,821	9,137
8 Native white of native parentage.....	53.3	74.3	86.0	81.7	92.5	92.1	96.6	98.4	70.1	90.6	98.9
9 Urban.....	538,650	4,067	7,184	13,008	16,661	4,139	4,686	12,574	12,099	11,940	9,237
10 Rural.....	2,070,650	21,321	398	657	2,002	302	179	1,253	24,637	1,805	659
11 Of largest city or village.....	154,839	4,067	42.5	41.5	38.8	22.3	21.7	31.4	49.1	48.3	21.0
12 Area, square miles.....	58,725	471	199	328	429	196	216	401	502	247	440
13 Average area, square miles, to white school.....	11.9	10.2	6.5	9.6	7.6	9.7	8.3	7.7	9.4	4.7	9.3
14 Number of white schools.....	4,933	46	26	34	56	19	26	52	53	52	47
15 Schools necessary to provide one for each 12 square miles.....	4,894	40	23	36	56	18	26	52	53	52	47
16 Population 6 to 20 years of age, per school.....	116	144	174	107	99	70	62	88	162	21	37
17 Population 6 to 20 years of age, for each 12 square miles.....	194	231	148	176	166	92	93	135	301	206	87
18 Number of one-teacher schools.....											
19 Per cent of one-teacher schools.....											
20 Population, 10 years of age and over.....	1,885,111	18,106	5,400	9,575	11,733	2,917	3,409	8,617	26,924	8,248	6,331
21 White.....	1,089,775	13,521	411	1,866	1,464	422	496	1,587	3,911	1,386	1,071
22 Colored.....	795,336	4,585	5,000	7,709	10,269	1,495	1,913	7,030	12,013	6,862	5,260
23 Native white, 10 years of age and over.....	1,023,970	13,496	4,953	7,914	10,912	2,111	3,305	8,439	19,016	7,497	6,281
24 Colored, 10 years of age and over.....	681,366	2,610	1,047	1,795	1,357	1,386	1,592	8,601	1,844	1,365	1,979
25 Per cent of illiterate.....	651,346	6,533	1,669	3,450	4,203	1,068	1,262	2,153	9,010	2,964	2,308
26 Population 10 to 20 years of age.....	91,901	1,018	37	370	437	91	93	1,034	1,034	294	218
27 Illiterate of illiterate.....	141	10	6.0	15.6	7.4	8.8	7.7	14.5	11.5	8.8	9.9
28 Per cent of illiterate.....	15.6	1.0	6.0	15.6	7.4	8.8	7.7	14.5	11.5	8.8	9.9
29 Population 6 to 20 years of age.....	925,845	9,260	2,223	3,940	5,989	1,477	1,687	4,605	12,661	4,330	3,243
30 School enrollment (public).....	565,071	6,025	1,423	3,046	5,190	1,055	1,357	2,810	6,900	3,463	2,663
31 Number enrolled from each 100 of 6 to 20 years of age.....	61.3	65.1	45.0	64.6	64.6	70.0	61.6	61.0	64.4	70.9	82.1
32 White enrollment.....	342,129	4,506	1,327	2,451	4,959	974	1,320	2,810	5,084	3,166	2,644
33 Colored enrollment.....	222,942	1,519	1,25	685	231	61	37	1,816	1,816	2,297	19
34 Number of private schools.....											
35 Private school enrollment.....											
36 Public and private school enrollment.....											
37 Per cent enrolled in private schools.....											

PUBLIC SCHOOLS.

39	Average attendance.....	352,069	2,966	828	1,862	3,307	631	857	1,576	4,670	2,025	1,248
40	White.....	221,381	2,243	745	1,487	3,102	531	832	1,872	3,520	1,872	1,335
41	Colored.....	130,678	713	83	375	145	38	24	1,150	67.6	143	13
42	Number attending daily in each 100 enrolled.....	62.1	48.2	57.1	61.2	63.7	60.9	63.1	56.0	69.6	46.4	50.6
43	White.....	64	50	56	60	63	60	62	56	69	59	60
44	Colored.....	53	46	56	63	68	62	64	.....	64	51	63
45	Number attending daily in each 100 of 6 to 20 years of age.....	38.0	32.0	37.1	37.6	55.1	42.6	51.4	34.1	38.7	46.6	41.5
46	Length of session in days.....	140	109	104	107	99	113	97	100	143	.99	84
47	Number of days each child enrolled attended.....	86.9	53.6	59.3	65.4	63.0	68.8	61.2	56.0	96.6	57.8	42.5
48	Number of days each child 6 to 20 years of age attended.....	34.8	34.8	38.5	40.2	54.5	48.1	49.8	34.1	52.4	46.1	34.8
49	Number of teachers.....	13,024	123	34	74	84	28	33	105	111	98	60
50	Enrollment per teacher.....	43	48	42	41	61	39	41	26	62	35	44
51	Teachers' salaries.....	\$3,367,856	\$90,994	\$4,967	\$16,364	\$16,452	\$3,698	\$5,149	\$18,397	\$48,568	\$12,432	\$8,490
52	Average annual salary.....	\$258	\$251	\$146	\$221	\$196	\$132	\$156	\$118	\$437	\$126	\$141
53	Teachers with normal training.....	4,139	36	5	26	21	.....	5	17	.....	1	10
54	Per cent of teachers with normal training.....	31.0	26.2	14.7	35.1	25.0	.....	15.1	16.1	.....	0.9	16.6
55	Teachers holding third-grade or temporary certificates.....	3,800	53	8	10	9	4	10	15	61	38	8
56	Per cent of teachers holding third-grade or temporary certificates.....	26.1	46.6	23.5	12.5	10.7	14.2	30.3	14.2	55.3	38.7	13.3
57	Total school expenditures.....	\$5,065,229	\$39,104	\$5,395	\$18,754	\$21,737	\$4,014	\$6,476	\$15,429	\$24,588	\$14,325	\$9,257
58	Amount received from the State.....	\$2,820,913	\$22,415	\$6,400	\$13,862	\$16,565	\$3,862	\$6,391	\$13,841	\$23,790	\$10,098	\$9,153
59	Per cent received from the State.....	56.5	57	100	71	76	96	98	89	94	73	98
60	Expenditures per child enrolled.....	\$8.96	\$9.49	\$3.71	\$6.15	\$4.16	\$3.87	\$4.77	\$5.49	\$7.95	\$4.13	\$3.47
61	Expenditures per child 6 to 20 years of age.....	\$5.46	\$6.4	\$2.41	\$3.78	\$3.00	\$2.70	\$3.89	\$3.34	\$4.32	\$3.29	\$2.84
62	Per cent of expenditures used for teachers' salaries.....	66.4	76.2	92.0	87.2	75.5	91.2	80.7	80.3	96.7	96.7	91.6
63	Tuition per child enrolled.....	\$5.94	\$3.14	\$3.41	\$5.36	\$3.14	\$3.52	\$3.84	\$4.40	\$7.02	\$3.58	\$3.17
64	Tuition per child 6 to 20 years of age.....	\$3.64	\$3.33	\$2.21	\$2.71	\$2.71	\$2.47	\$3.13	\$2.68	\$3.81	\$2.85	\$2.60
65	Value of school buildings.....	\$10,268,044	\$87,950	\$12,200	\$30,250	\$41,500	\$6,950	\$6,400	\$43,200	\$198,900	\$12,425	\$17,375
66	Average value of school building.....	\$1,506	\$1,332	\$488	\$1,116	\$902	\$369	\$266	\$900	\$2,296	\$770	\$361
67	Number of school libraries.....	1,176	24	2	3	10	3	14	25	14	3	7
68	Number of volumes in libraries.....	212,845	2,571	650	541	3,000	300	450	2,345	750	400	800
69	Average number of volumes.....	180	107	326	180	300	100	32	93	53	133	114
70	Circulating libraries used ¹	23,362	92	10	84	117	6	.....	6	102	36	.....
71	Enrolled in high school.....	2.62	0.99	0.44	1.69	1.95	0.40	.....	0.13	0.80	0.87	.....
72	Enrolled in high school from every 100 of population 6 to 20 years of age.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

1. No data.

* Exclusive of \$100,000 for a new building.

School statistics of Georgia—Continued.

[The mountain counties are in *italics*.]

	Gordon County.	Habersham County.	Lumpkin County.	Murray County.	Pickens County.	Rabun County.	Townes County.	Union County.	Walker County.	White County.	Whitfield County.
Population:											
1 Total.....	15,861	10,134	5,444	9,763	9,041	5,563	3,932	6,918	18,692	5,110	15,934
2 White.....	14,556	9,452	5,124	9,361	8,601	5,400	3,917	1,854	16,241	4,713	14,214
3 Colored.....	1,306	711	320	402	440	166	15	64	2,451	287	1,719
4 Per cent colored.....	8.3	7.0	5.9	4.1	4.9	2.8	0.4	0.9	13.1	7.8	10.8
5 Foreign white.....	16	95	7	5	19	6	.....	2	60	8	30
6 Per cent foreign white.....	0.1	0.9	0.1	0.1	0.2	0.1	.....	0.3	0.3	0.2	0.2
7 Native white of native parentage.....	14,464	9,293	5,103	9,331	8,535	5,377	3,910	6,842	16,079	4,669	14,064
8 Per cent native white of native parentage.....	91.2	91.2	93.7	95.6	94.4	96.7	99.4	98.9	86.0	91.4	91.4
9 Urban.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 Rural.....	15,861	10,134	5,444	9,763	9,041	5,563	3,932	6,918	18,692	5,110	15,934
11 Of largest city or village.....	1,652	760	829	313	550	541	282	203	1,592	510	1,616
12 Rural per square mile.....	42.3	34.9	19.4	28.4	39.1	14.8	21.7	21.4	43.3	20.9	37.5
13 Area, square miles.....	375	290	280	342	231	377	181	324	432	245	283
14 Average area, square miles, to white school.....	7.5	7.2	9.7	9.7	6.8	11.7	8.6	7.3	8.4	10.2	6.9
15 Number of white schools, to white school.....	50	40	26	35	34	32	21	44	51	24	41
16 Schools necessary to provide one for each 12 square miles.....	32	26	20	20	20	32	16	27	36	21	24
17 Population, 6 to 20 years of age, per school.....	99	81	57	92	87	56	70	57	100	68	115
18 Population, 6 to 20 years of age, for each 12 square miles.....	174	142	76	120	153	60	92	96	178	88	235
19 Number of one-teacher schools ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20 Per cent of one-teacher schools.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21 Population 10 years of age and over.....	11,242	7,050	3,886	6,697	6,214	3,885	2,740	4,808	13,446	3,563	11,472
22 Illiterate.....	1,335	978	840	1,031	1,094	564	436	721	1,427	641	1,445
23 Per cent of illiterate.....	11.9	13.9	21.6	15.4	17.6	14.5	15.9	15.0	10.6	18.2	12.6
24 Native white 10 years of age and over.....	10,231	6,474	3,656	6,408	5,877	3,763	2,739	4,756	11,600	3,232	10,216
25 Illiterate.....	889	641	760	946	1,016	537	430	712	1,021	475	1,128
26 Per cent of illiterate.....	9.7	13.0	21.0	14.8	17.3	14.3	15.8	15.0	8.8	14.4	11.0
27 Population 10 to 20 years of age.....	3,927	2,417	1,259	2,374	2,157	1,323	1,042	1,775	4,884	1,272	4,010
28 Illiterate.....	302	189	136	267	204	100	90	129	312	91	430
29 Per cent of illiterate.....	7.7	7.8	10.8	11.2	9.5	7.5	8.6	7.3	6.8	7.2	10.5
30 Population 6 to 20 years of age.....	5,387	3,565	1,832	3,506	3,164	1,927	1,487	2,594	6,442	1,855	5,648
31 School enrollment (public).....	3,920	2,330	1,301	2,504	2,369	1,438	1,120	2,414	4,969	1,455	4,019
32 Number enrolled from each 100 of 6 to 20 years of age.....	70.1	65.3	71.0	71.4	74.7	74.6	75.2	93.0	77.4	78.4	71.0
33 White enrollment.....	3,629	2,219	1,187	2,398	2,267	1,399	1,120	2,401	4,397	1,334	3,526
34 Colored enrollment.....	291	111	114	106	102	39	.....	13	592	121	483
35 Number of private schools ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36 Private school enrollment ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37 Public and private school enrollment ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38 Per cent enrolled in private schools ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PUBLIC SCHOOLS.									
39	Average attendance.....	2,229	1,108	776	1,415	1,364	886	626	1,306
40	White.....	2,036	1,064	706	1,353	1,301	860	626	1,207
41	Colored.....	193	74	70	62	63	26	63	9
42	Number attending daily in each 100 enrolled.....	56.8	50.1	59.6	56.5	57.6	61.6	55.8	54.1
43	White.....	56	48	58	56	57	61	55	54
44	Colored.....	66	66	61	58	61	66	63	69
45	Number attending daily in each 100 of 6 to 20 years of age.....	39.8	32.7	42.3	40.3	43.0	45.9	41.9	50.3
46	Length of session in days.....	94	100	88	109	116	100	100	100
47	Number of days each child enrolled attended.....	53.3	50.1	52.4	61.5	66.8	61.6	55.8	54.1
48	Number of days each child 6 to 20 years of age attended.....	37.4	32.7	37.2	43.9	49.8	45.9	41.9	50.3
49	Number of teachers.....	90	89	83	64	48	42	32	60
50	Enrollment per teacher.....	43	39	24	46	49	34	35	40
51	Teachers' salaries.....	\$15,239	\$8,735	\$5,477	\$12,116	\$10,937	\$5,767	\$3,370	\$6,970
52	Average annual salary.....	\$169	\$148	\$103	\$224	\$227	\$137	\$105	\$114
53	Per cent of teachers with normal training.....	10.0	9	26	6	13	4	5	5
54	Teachers holding third-grade or temporary certificates.....	85	16	25	11.1	27.1	9.5	15.6	13
55	Per cent of teachers holding third-grade or temporary certificates.....	61.1	27.1	47.1	16.6	27.0	52.3	21.6	13
56	Total school expenditures.....	\$16,550	\$9,559	\$4,785	\$13,668	\$12,970	\$6,323	\$3,821	\$7,297
57	Amount received from the State.....	\$11,715	\$6,522	\$4,435	\$9,994	\$8,961	\$5,962	\$3,821	\$7,321
58	Per cent received from the State.....	70	68	80	73	69	94	100	100
59	Expenditures per child enrolled.....	\$4.27	\$4.10	\$4.31	\$5.45	\$5.47	\$4.37	\$3.14	\$5.02
60	Expenditures per child 6 to 20 years of age.....	\$2.67	\$2.41	\$2.71	\$3.87	\$4.09	\$3.07	\$2.56	\$4.01
61	Per cent of expenditures used for teachers' salaries.....	91.7	91.7	87.4	88.3	84.8	91.1	88.1	94.1
62	Tuition per child enrolled.....	\$3.87	\$3.75	\$4.20	\$4.79	\$4.61	\$3.69	\$2.81	\$4.28
63	Tuition per child 6 to 20 years of age.....	\$2.71	\$2.44	\$2.68	\$3.41	\$3.43	\$2.87	\$2.25	\$3.63
64	Value of school building.....	\$33,340	\$16,100	\$11,700	\$24,000	\$20,290	\$22,700	\$10,700	\$9,100
65	Average value of school building.....	\$577	\$402	\$344	\$705	\$614	\$687	\$509	\$202
66	Number of books.....	7	2	14	4	9	5	3	30
67	Number of volumes.....	896	6,400	743	100	574	310	7,200	2,000
68	Average number of volumes.....	128	3,200	53	25	63	62	3,600	66
69	Circulating libraries used.....	49	.....	44	28	14	.....	167	20
70	Enrolled in high school.....	.....	.....	.....	.....	.....	.....	.....	.....
71	Enrolled in high school from every 100 of population 6 to 20 years of age.....	0.87			0.79	0.44		11.23	0.77
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1 No data.

School statistics of Kentucky.

[The mountain counties are in *italics*.]

	Entire State.	Bell County.	Boyd County.	Breathitt County.	Carter County.	Clay County.	Elliott County.	Estill County.	Floyd County.	Greenup County.	Harlan County.
Population:											
Total.....	2,289,905	28,447	23,444	17,540	21,966	17,789	9,814	12,273	18,623	18,475	10,566
White.....	2,027,951	25,527	22,609	17,279	21,856	17,295	9,809	12,167	18,478	18,208	10,002
Colored.....	261,954	2,920	822	260	110	494	1	106	99	267	564
Per cent colored.....	11.4	10.3	3.5	1.5	0.5	2.8	0.01	0.9	0.5	1.4	5.0
Foreign white.....	40,653	415	359	20	45	4	1	3	8	58	12
Per cent foreign white.....	1.7	1.5	1.5	0.1	0.2	0.02	0.01	0.02	0.04	0.3	0.1
Native white of native parentage.....	1,863,194	24,649	20,989	17,234	21,657	17,279	9,801	12,151	18,463	17,824	9,977
Per cent of native white of native parentage.....	81.4	86.6	89.4	98.3	98.6	97.1	99.9	99.0	99.1	96.5	94.4
Urban.....	555,442	7,305	12,208	17,540	21,966	17,789	9,814	12,273	18,623	18,475	10,566
Rural.....	1,734,463	21,142	11,236	1,346	1,132	626	160	272	1,120	1,038	657
Of largest city or village.....	223,928	7,305	8,688	36.3	53.2	37.2	37.3	48.3	46.7	53.4	22.1
Rural per square mile.....	43.2	55.1	70.7	36.3	41.3	47.8	263	254	399	346	478
Area, square miles.....	40,181	384	159	483	413	379	4.7	4.0	4.0	4.7	8.7
Average area (square miles) tributary to each white school.....	5.9	6.0	5.1	5.4	4.3	93	5.6	65	99	73	55
Number of white schools.....	6,957	64	33	90	95	40	22	22	34	29	40
Schools necessary to provide one for each 12 square miles.....	3,515	29	14	41	35	74	70	62	72	67	67
Population 6 to 20 years of age per school.....	94	156	196	74	84	74	176	212	214	230	99
Population 6 to 20 years of age for each 12 square miles.....	7,294	344	547	166	232	177	54	64	98	67	57
Number of one-teacher schools.....	215	55	34	87	88	90	54	64	98	67	57
Per cent of one-teacher schools.....	92.0	85.9	87.1	94.4	91.6	94.7	98.1	100	98.0	98.6	96.6
Population 10 years of age and over.....	1,722,644	19,870	17,468	11,636	15,128	11,594	6,509	8,376	12,338	12,958	6,966
Illiterate.....	208,048	4,148	1,573	2,807	2,731	2,860	1,207	1,704	3,146	1,952	2,182
Per cent of illiterate.....	12.1	20.9	9.0	24.1	18.1	24.7	18.5	20.3	25.5	15.1	31.3
Native white 10 years of age and over.....	1,472,827	17,152	16,418	11,411	14,996	11,258	6,503	8,286	12,232	12,677	6,447
Illiterate.....	146,797	3,486	1,425	2,727	2,702	2,780	1,202	1,674	3,108	1,872	1,908
Per cent of illiterate.....	20.3	20.3	8.7	23.9	18.0	24.5	18.5	20.2	25.4	14.8	29.6
Population 10 to 20 years of age.....	539,454	6,900	5,479	4,672	5,670	4,823	2,656	3,266	4,956	4,622	2,677
Illiterate.....	36,156	994	442	660	691	587	277	376	877	419	481
Per cent of illiterate.....	6.7	14.4	8.1	14.1	12.2	12.2	10.4	11.5	17.7	9.1	18.0
Population 6 to 20 years of age.....	755,709	9,990	7,661	6,834	8,122	7,100	3,884	4,671	7,287	6,683	3,999
School enrollment (public).....	495,863	6,296	5,068	5,730	5,494	5,788	3,141	2,869	5,564	4,681	3,466
Number enrolled from each 100 of population 6 to 20.....	65.6	62.7	66.1	83.8	67.6	81.5	80.8	62.0	76.3	70.2	86.4
White enrollment.....	441,511	5,775	4,901	5,670	5,482	5,674	3,141	2,887	5,553	4,580	3,342
Colored enrollment.....	54,352	491	167	60	12	124	1	12	11	101	122
Number of private schools.....	137	2	2	4	4	4	1	1	1	1	1
Private-school enrollment, 20 years of age or under.....	15,989	130	130	422	422	425	10	10	225	225	225
Public and private school enrollment.....	511,852	6,162	5,198	6,162	6,162	6,223	2,909	2,909	5,788	5,788	3,388
Per cent of enrollment in private schools.....	3.1	2.2	2.5	6.8	6.8	6.8	0.3	0.3	3.8	3.8	3.8

PUBLIC SCHOOLS.

39	Average attendance.....	273,560	4,205	3,300	3,502	2,901	1,603	1,001	.....	2,728	.....
40	White.....	245,777	3,915	3,181	3,460	2,980	1,403	1,061	.....	2,690	.....
41	Colored.....	27,783	290	119	83	11	.....	.....	.....	39	.....
42	Number attending daily in each 100 enrolled.....	15.1	67.1	65.1	61.1	52.8	51.0	57.6	.....	58.3	.....
43	White.....	15	67	64.9	61.1	53	51	57	.....	58	.....
44	Colored.....	51	56	71.2	55	91	53	83	.....	38	.....
45	Number attending daily in each 100 of population 6 to 20.....	38.1	42.0	43.0	51.2	35.6	41.2	35.7	.....	40.9	.....
46	Length of session, in days.....	.....	.....	141	103	122	110	130	.....	143	.....
47	Number of days each child enrolled attended.....	.....	.....	91.7	62.9	64.4	56.1	74.8	.....	83.3	.....
48	Number of days each child 6 to 20 years of age attended.....	.....	.....	60.6	52.7	43.4	45.3	46.4	.....	58.4	.....
49	Number of teachers.....	11,160	114	123	96	115	102	68	.....	88	.....
50	Enrollment per teacher.....	44	54	41	59	47	56	42	.....	53	.....
51	Teachers' salaries.....	\$3,425,139	\$37,062	\$45,771	\$26,932	\$32,210	\$15,558	\$18,340	.....	\$28,862	.....
52	Average annual salary.....	\$306.91	\$325	\$375	\$280	\$280	\$271	\$269	.....	\$327	.....
53	Teachers with normal training ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
54	Teachers holding third-grade certificates.....	608	5	2	7.2	6	10	0	.....	2	.....
55	Per cent of teachers with normal school training ¹	5.4	4.3	1.6	.....	4.3	9.8	0	.....	2.2	.....
56	Per cent of teachers holding third-grade certificates.....	\$5,543,390	\$46,013	\$108,292	\$31,969	\$39,330	\$18,199	\$24,118	.....	\$34,808	.....
57	Total school expenditures.....	\$2,450,786	\$24,176	\$28,535	\$10,670	\$31,912	\$15,313	\$18,515	.....	\$25,691	.....
58	Amount received from the State.....	.....	.....	26	33	81	84	76	.....	73	.....
59	Per cent received from the State.....	.....	.....	26	33	81	84	76	.....	73	.....
60	Expenditure per child enrolled.....	\$11.11	\$7.34	\$21.36	\$5.57	\$7.15	\$6.23	\$5.31	.....	\$7.43	.....
61	Expenditure per child 6 to 20 years of age.....	\$7.28	\$4.60	\$9.63	\$4.66	\$4.83	\$5.07	\$5.15	.....	\$5.21	.....
62	Per cent of total expenditures used for teachers' salaries.....	61.7	85.4	42.2	84.2	81.9	85.4	70.0	.....	82.9	.....
63	Tuition per child enrolled.....	\$6.34	\$6.26	\$9.01	\$4.98	\$5.85	\$4.75	\$4.94	.....	\$5.15	.....
64	Tuition per child 6 to 20 years of age.....	\$4.49	\$3.92	\$3.81	\$3.92	\$3.95	\$3.87	\$3.91	.....	\$4.31	.....
65	Value of school buildings.....	\$5,195,312	\$20,040	\$193,515	\$20,000	\$62,700	\$38,000	\$20,000	.....	\$30,000	.....
66	Average value of school buildings.....	\$658	\$334	\$4,206	\$263	\$490	\$400	\$307	.....	\$400	.....
67	Number of school libraries.....	1,715	10	5	0	16	10	0	.....	22	.....
68	Number of volumes in libraries.....	123,933	1,042	315	0	160	63	0	.....	593	.....
69	Average number of volumes.....	71	104	63	0	9	13	0	.....	26	.....
70	Circulating libraries used ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
71	Enrollment in high school.....	6,874	16	219	0	23	0	0	.....	42	.....
72	Enrolled in high school from every 100 of population 6 to 20 years of age.....	0.90	0.16	2.85	.....	0.27	.....	.....	.....	0.62	.....
											0.15

¹ No data.

School statistics of Kentucky—Continued.

(The mountain counties are in *italics*.)

	Jackson County.	Johnson County.	Knox County.	Laurel County.	Lawrence County.	Lee County.	Leslie County.	Letcher County.	Mingo County.	Martin County.
Population:										
1 Total.....	10,734	17,482	22,116	19,872	20,087	9,531	8,976	10,623	13,654	7,291
2 White.....	10,712	17,455	21,080	19,219	19,984	9,297	8,844	10,606	13,508	7,287
3 Colored.....	22	327	1,036	653	103	233	132	17	54	4
4 Per cent colored.....	0.2	0.3	4.6	3.3	0.5	2.5	1.2	0.2	0.4	0.1
5 Per cent foreign born.....	0.4	0.4	0.4	0.3	0.1	0.5	0.1	0.2	0.1	0.1
6 Native foreign born.....	10,699	17,294	20,870	18,432	19,796	9,292	8,842	10,604	13,495	7,276
7 Native white.....	98.7	88.9	94.4	92.8	88.6	98.5	98.5	98.8	98.8	98.8
8 Per cent of native white of native parentage.....										
9 Urban.....	10,734	17,482	21,262	19,872	20,087	9,531	8,976	10,623	13,654	7,291
10 Rural.....	10,734	17,482	21,262	19,872	20,087	9,531	8,976	10,623	13,654	7,291
11 Of largest city or village.....	10,734	17,482	21,262	19,872	20,087	9,531	8,976	10,623	13,654	7,291
12 Rural per square mile.....	32.2	65.2	59.7	44.5	47.6	47.9	24.1	29.9	45.2	32.1
13 Area, square miles.....	333	268	356	447	422	196	373	355	302	227
14 Average area (square miles) tributary to each white school.....	4.8	3.2	4.2	4.9	4.3	4.6	6.9	5.5	3.7	6.4
15 Number of white schools.....	69	82	84	90	98	43	53	64	81	35
16 Schools necessary to provide one for each 12 square miles.....	28	23	30	38	36	17	32	30	26	19
17 Population 6 to 20 years of age per school.....	60	79	93	77	75	82	64	64	66	86
18 Population 6 to 20 years of age for each 12 square miles.....	149	285	178	200	209	212	111	141	205	155
19 Number of one-teacher schools.....	69	76	80	92	98	41	54	64	79	32
20 Per cent of one-teacher schools.....	100	92.6	89.9	96.8	97.0	93.1	98.1	96.9	98.7	94.1
21 Per cent of illiterate.....	7,110	12,021	15,089	13,725	13,842	6,566	5,745	6,837	9,087	4,982
22 Native white 10 years of age and over.....	1,333	1,940	3,132	1,996	2,625	1,229	2,002	1,463	2,184	1,140
23 Illiterate.....	18.7	16.1	20.8	14.6	19.0	18.7	34.8	21.8	24.0	23.1
24 Per cent of illiterate.....	7,097	11,923	14,213	12,961	13,663	6,343	5,654	6,944	8,978	4,978
25 Illiterate.....	1,328	1,923	2,920	1,873	2,586	1,155	1,951	1,463	2,104	1,137
26 Per cent of illiterate.....	18.7	16.1	20.8	14.6	19.0	18.7	34.8	21.8	24.0	23.1
27 Population 10 to 20 years of age.....	2,839	4,577	5,708	5,077	5,272	2,523	2,393	2,856	3,662	2,061
28 Illiterate.....	242	348	659	312	662	259	506	244	628	305
29 Per cent of illiterate.....	8.5	7.6	11.5	6.1	11.0	10.3	21.1	8.5	14.4	14.8
30 Population 6 to 20 years of age.....	4,174	6,540	8,357	7,402	7,556	3,612	2,570	4,223	5,330	2,954
31 School enrollment (public).....	3,406	5,156	6,254	6,223	6,042	2,815	2,692	3,553	4,184	1,807
32 Number enrolled from each 100 of population 6 to 20.....	81.6	78.8	74.8	84.0	79.9	77.9	76.4	83.0	77.9	63.9
33 White enrollment.....	3,406	5,156	6,008	6,053	6,000	2,754	2,652	3,553	4,144	1,807
34 Colored enrollment.....	2	2	2	1	42	61	40	2	10	2
35 Number of private schools.....	226	150	325	395	250	150	250	150	150	150
36 Private-school enrollment 20 years of age or under.....	3,632	5,306	6,579	6,118	6,292	2,815	2,692	3,553	4,304	1,807
37 Public and private school enrollment.....	3,632	5,306	6,579	6,118	6,292	2,815	2,692	3,553	4,304	1,807
38 Per cent of enrollment in private schools.....	6.2	2.8	6.7	5.9	3.9	3.9	3.9	3.9	3.4	3.4

PUBLIC SCHOOLS.

39	Average attendance.....	1,618	2,999	2,531	3,156	3,255	2,902	1,393	2,438	2,158	981
40	White.....	1,618	2,999	2,500	3,046	3,153	2,881	1,393	2,438	2,158	981
41	Colored.....			31	110	103	21	30		9	
42	Number attending daily in each 100 enrolled.....	47.5	58.1	62.1	50.4	52.3	48.2	49.5	68.6	52.1	40.8
43	White.....	47	58	62	50	52	48	49	68	52	49
44	Colored.....			62	44	60	50	50		90	
45	Number attending daily in each 100 of population 6 to 20.....	38.7	45.7	58.7	37.6	43.9	38.5	38.5	57.5	40.5	31.4
46	Length of session, in days.....	118	115	112	111	119	113	121	107	129	122
47	Number of days each child enrolled attended.....	56.0	66.8	69.5	55.9	62.1	54.4	59.8	73.4	67.2	60.7
48	Number of days each child 6 to 20 years of age attended.....	45.6	52.5	65.7	41.7	52.2	44.5	46.5	61.5	52.2	38.3
49	Number of teachers.....	71	93	63	116	102	111	48	73	80	37
50	Enrollment per teacher.....	47	55	64	53	61	54	54	47	51	50
51	Teachers' salaries.....	\$17,201	\$24,597	\$17,430	\$32,725	\$29,339	\$30,776	\$15,163	\$17,307	\$21,203	\$11,315
52	Average annual salary.....	\$342	\$267	\$276	\$252	\$287	\$277	\$316	\$237	\$255	\$305
53	Teachers with normal training ²										
54	Per cent of teachers with normal school training ¹										
55	Teachers holding third-grade certificates.....	5	9	27	10	6	6	1	5	1	0
56	Per cent of teachers holding third-grade certificates.....	7.0	9.6	42.8	8.6	5.8	5.4	2.0	6.8	1.2	0
57	Total school expenditures.....	\$22,094	\$34,806	\$22,949	\$45,336	\$39,642	\$39,890	\$19,745	\$22,045	\$23,653	\$16,430
58	Amount received from the State.....	\$17,816	\$25,092	\$17,172	\$33,772	\$30,624	\$29,510	\$15,441	\$17,812	\$22,164	\$10,905
59	Per cent received from the State.....	80	72	74	74	77	74	78	84	92	66
60	Expenditure per child enrolled.....	\$6.48	\$6.57	\$5.62	\$7.54	\$6.37	\$6.58	\$7.01	\$6.56	\$6.20	\$5.99
61	Expenditure per child enrolled 6 to 20 years of age.....	\$5.28	\$5.17	\$5.31	\$5.63	\$5.35	\$5.25	\$5.46	\$4.94	\$4.43	\$5.06
62	Per cent of total expenditures used for teachers' salaries.....	77.8	71.5	76.9	72.2	74.0	77.2	76.9	82.5	86.5	88.8
63	Tuition per child enrolled.....	\$5.04	\$4.69	\$4.26	\$5.44	\$4.71	\$5.07	\$5.39	\$4.81	\$3.09	\$3.87
64	Tuition per child enrolled 6 to 20 years of age.....	\$4.10	\$3.69	\$4.03	\$4.06	\$3.88	\$4.06	\$4.19	\$4.07	\$3.96	\$3.71
65	Value of school buildings.....	\$40,975	\$50,000	\$17,700	\$30,000	\$25,000	\$40,000	\$13,000	\$15,937	\$15,570	\$7,000
66	Average value of school buildings.....	\$569	\$98	\$300	\$340	\$271	\$404	\$266	\$312	\$222	\$200
67	Number of school libraries.....	27	37	0	12	20	5	0	2	11	2
68	Number of volumes in libraries.....	450	435	0	250	500	60	0		340	25
69	Average number of volumes.....				20	25	10	0		30	
70	Circulating libraries used ¹										
71	Enrollment in high school.....										
72	Enrolled in high school from every 100 of population 6 to 20 years of age.....		0	0	25	25	3	0	0	0	0.87

¹ Corbin lies in Knox and Whitely Counties.² No data.

School statistics of Kentucky—Continued.

[The mountain counties are in *italics*.]

	Morgan County.	Owsley County.	Perry County.	Pike County.	Powell County.	Pulaski County.	Rockcastle County.	Wayne County.	Whitley County.	Wolfe County.
Population:										
1 Total.....	16,259	7,979	11,255	31,679	6,268	35,966	14,473	17,518	31,983	9,864
2 White.....	16,225	7,904	11,941	31,347	5,981	34,799	14,348	16,779	30,859	9,808
3 Colored.....	34	75	214	332	1,157	1,157	125	739	1,111	56
4 Per cent colored.....	0.2	0.9	1.9	1.0	5.4	3.3	0.9	4.2	3.5	0.6
5 Foreign white.....	3	1	0	106	5	126	13	13	145	4
6 Per cent foreign white.....				0.3	0.1	0.4	0.1	0.1	0.5	
7 Native white of native parentage.....	16,207	7,894	11,032	31,142	5,921	34,295	14,302	16,745	30,430	9,800
8 Per cent of native white of native parentage.....	98.7	98.9	98.0	98.3	94.5	95.3	98.3	95.6	95.1	99.4
9 Urban.....										
10 Rural.....	16,259	7,979	11,255	31,679	6,268	35,966	14,473	17,518	31,983	9,864
11 Of largest city or village.....	442	286	537	1,280	581	4,491	930	1,338	2,247	328
12 Rural per square mile.....	44.5	38.9	33.6	40.7	34.6	40.4	46.7	29.7	51.7	42.9
13 Area, square miles.....	365	216	335	779	181	779	310	590	565	230
14 Average area (square miles) tributary to each white school.....	4.4	5.8	5.5	4.8	5.9	5.1	4.4	6.4	4.7	4.6
15 Number of white schools.....	82	37	60	161	31	152	70	92	122	49
16 Schools necessary to provide one for each 12 square miles.....	31	13	28	65	16	65	26	50	49	20
17 Population 6 to 20 years of age per school.....	74	81	72	79	73	85	76	65	90	74
18 Population 6 to 20 years of age for each 12 square miles.....	183	171	157	188	138	201	208	126	248	190
19 Number of one-teacher schools.....	92.5	83	60	149	30	138	68	95	116	49
20 Per cent of one-teacher schools.....	92.5	83	60	149	30	138	68	95	116	49
21 Population 10 years of age and over.....	11,255	5,342	7,283	21,132	4,427	25,420	9,530	12,124	21,912	9,810
22 Per cent of illiterate.....	1,820	1,103	1,928	4,866	896	2,560	1,708	2,465	2,911	6,619
23 Native white 10 years of age and over.....	11,239	5,259	7,144	20,772	4,152	24,365	9,723	11,561	20,948	9,747
24 Illiterate.....	1,812	1,090	1,936	4,739	809	2,723	1,072	2,287	2,739	6,580
25 Per cent of illiterate.....	16.1	20.4	26.5	22.8	19.5	11.2	11.2	19.8	13.1	14.7
26 Population 10 to 20 years of age.....	4,185	2,087	2,981	8,463	1,524	9,151	3,663	4,320	8,182	2,513
27 Illiterate.....	397	236	454	1,045	229	460	280	553	488	126
28 Per cent of illiterate.....	9.5	11.3	15.2	12.4	15.0	5.0	7.6	12.8	5.9	15.0
29 Population 6 to 20 years of age.....	6,103	3,085	4,402	12,278	2,212	13,117	5,428	6,800	11,920	3,313
30 School enrollment (public).....	4,082	2,497	3,623	9,238	1,558	13,117	5,428	6,800	11,920	3,313
31 Number enrolled from each 100 of population 6 to 20.....	66.6	79.3	82.3	75.4	75.4	145.9	58.3	79.3	54.7	29.8
32 White enrollment.....	4,062	2,482	3,603	9,186	1,548	13,117	5,428	6,800	11,920	3,313
33 Colored enrollment.....	20	15	20	52	10	100	40	120	90	10
34 Per cent of enrollment.....	0.3	0.5	0.5	0.5	0.5	0.8	0.7	1.8	0.8	0.3
35 Number of private schools.....	1	1	2	3	1	4	1	1	4	1
36 Private-school enrollment, 20 years of age or under.....	390	40	405	80	80	80	80	80	100	315
37 Public and private school enrollment.....	2,497	2,497	2,900	9,733	1,558	13,117	5,428	6,800	11,920	3,313
38 Per cent of enrollment in private schools.....	1.6	1.6	13.7	5.0	1.6	1.6	1.6	1.6	1.1	9.7

PUBLIC SCHOOLS.

39	Average attendance.....	1,055	4,367	771	2,321	2,004	4,578	1,556
40	White.....	1,013	4,340	723	2,302	1,982	4,460	1,561
41	Colored.....	9	27	48	119	22	178	95
42	Number attending daily in each 100 enrolled.....	41.1	47.2	62.5	41.6	41.6	53.4	53.3
43	White.....	41	47	63	53	41	53	53
44	Colored.....	67	51	52	41	41	67	62
45	Number attending daily in each 100 of population 6 to 20.....	23.9	35.4	34.9	31.7	31.7	38.2	40.7
46	Length of session, in days.....	123	118	130	117	117	135	125
47	Number of days each child enrolled attended.....	73.3	55.6	81.2	48.6	48.6	72.0	66.6
48	Number of days each child 6 to 20 years of age attended.....	58.0	41.7	45.3	37.0	37.0	51.5	50.8
49	Number of teachers.....	91	164	34	80	105	151	55
50	Enrollment per teacher.....	54	56	36	45	45	56	53
51	Teachers' salaries.....	\$12,111	\$49,129	\$8,500	\$21,078	\$25,855	\$47,667	\$15,808
52	Average annual salary.....	\$24,673	\$299	\$250	\$263	\$246	\$315	\$287
53	Teachers with normal training ¹	0	28	0	21	6	26	2
54	Teachers holding third-grade certificates.....	0	17	0	26	5	17	3
55	Per cent of teachers with normal school training ¹	0	17.0	0	26.2	5.7	17.2	3.6
56	Total school expenditures.....	\$33,919	\$63,910	\$10,696	\$31,099	\$34,782	\$64,470	\$18,882
57	Amount received from the State.....	\$23,639	\$46,212	\$8,924	\$21,948	\$26,880	\$47,415	\$16,666
58	Per cent received from the State.....	69	75	83	70	73	86	88
59	Expenditure per child enrolled.....	\$6.83	\$6.91	\$3.64	\$7.23	\$7.23	\$9.86	\$6.47
60	Expenditure per child 6 to 20 years of age.....	\$5.63	\$5.18	\$3.82	\$5.51	\$5.51	\$7.06	\$4.94
61	Per cent of total expenditures used for teachers' salaries.....	72.7	76.8	79.4	67.71	74.3	86.4	83.7
62	Tuition per child enrolled.....	\$4.96	\$3.30	\$3.86	(?)	\$5.37	\$3.56	\$5.41
63	Tuition per child 6 to 20 years of age.....	\$4.09	\$3.97	\$3.82	(?)	\$4.09	\$3.98	\$4.13
64	Value of school buildings.....	\$37,460	\$67,750	\$28,400	\$21,045	\$50,000	\$75,000	\$20,464
65	Average value of school buildings.....	\$462	\$460	\$857	\$269	\$520	\$572	\$401
66	Number of school libraries.....	6	6	6	5	2	30	...
67	Number of volumes in libraries.....	518	518	...	215	20	1,200	...
68	Average number of volumes.....	86	86	...	43	10	40	...
69	Circulating libraries used ¹	...	...	...	...	...	...	...
70	Enrollment in high school.....	0	0	302	26	27	45	0
71	Enrolled in high school from every 100 of population 6 to 20 years of age.....	0	0	13.65	0.96	0.42	0.37	...

* No data.

¹ Corbin lies in Knox and Whitley Counties.

School statistics of North Carolina.

[The mountain counties are in *italic*.]

	Entire State.	Alexander County.	Alleghany County.	Ashe County.	Buncombe County.	Burke County.	Cherokee County.	Clay County.	Graham County.	Haywood County.	Henderson County.
Population:											
Total.....	2,204,287	11,592	7,745	19,074	49,708	21,498	14,136	3,909	4,749	21,020	16,292
White.....	1,500,511	10,882	7,405	16,524	41,814	15,838	13,092	3,731	4,592	20,448	14,471
Colored.....	697,843	910	340	2,550	7,893	5,660	1,044	1,178	1,157	562	1,821
Colored colored.....	31.6	7.9	4.4	2.9	15.6	12.0	3.6	4.0	1	2.7	11.2
Foreign white.....	5,942	1	2	11	498	142	11	1	1	69	75
Per cent foreign white.....	0.3			0.1	1.0	0.7	0.1			0.3	0.5
Native white of native parentage.....	1,485,718	10,657	7,381	18,488	40,547	18,598	13,571	3,740	4,599	20,300	14,220
Per cent native white of native parentage.....	67.3	91.9	95.3	96.9	81.4	86.9	96.0	95.9	96.6	96.6	87.4
Urban.....	318,474					2,712					
Rural.....	1,887,813	11,592	7,745	19,074	49,708	18,696	14,136	3,909	4,749	21,020	16,292
Largest city or village.....	34,014	662	199	184	15,762	2,712	14,977	17.8	123	2,008	13,444
Area, square miles.....	38.7	40.1	33.1	44.7	48.6	35.0	31.1	17.8	15.9	33.5	39.6
Average area (square miles) to each white school.....	48,740	289	234	427	639	534	454	220	208	546	358
Number of white schools.....	5,613	5.5	6.0	4.3	14.2	9.7	7.5	15.7	11.9	9.5	6.5
Schools necessary to provide one for each 12 square miles.....	4,063	25	20	36	50	55	60	14	25	57	55
Population 6 to 20 years of age per school.....	102	72	68	65	150	115	98	89	76	137	80
Population 6 to 20 years of age for each 12 square miles.....	183	167	143	197	308	168	136	75	70	164	191
Number of one-teacher schools.....	5,820	31	31	95	80	51	46	13	22	27	42
Per cent of one-teacher schools.....	75.9	53.5	74.0	78.0	72.1	78.5	80.8	81.3	95.7	40.1	65.7
Population 10 years of age and over.....	1,578,595	8,161	5,510	13,255	36,853	15,407	9,802	2,776	3,239	14,734	11,788
Per cent of illiterate.....	18.5	1.324	6.03	2.154	3.534	2,761	1,962	473	384	1,928	1,502
Native white 10 years of age and over.....	1,077,063	7,542	5,266	12,881	30,211	13,431	9,411	2,675	3,111	14,241	10,359
Per cent of illiterate.....	12.3	1.120	5.294	2,005	2,455	2,153	1,830	436	318	1,946	1,111
Population 10 to 20 years of age.....	562,966	2,831	1,994	4,924	11,861	5,368	3,600	987	1,204	5,274	4,043
Per cent of illiterate.....	10.7	232	115	379	442	572	793	97	63	460	371
Per cent of illiterate.....	10.7	7.9	5.8	7.7	3.7	10.7	10.9	9.8	5.2	8.7	9.2
Population 6 to 20 years of age.....	785,583	4,193	2,871	7,125	16,697	7,572	5,191	1,428	1,792	7,546	5,730
School enrollment (public).....	525,507	3,729	2,461	6,900	12,373	4,397	4,479	903	1,081	5,257	4,049
Number enrolled from each 100 of 6 to 20 years of age.....	66.8	88.9	85.7	96.5	74.2	68.0	86.2	63.2	61.4	69.6	70.6
White enrollment.....	373,224	3,464	2,387	6,740	10,772	3,872	4,439	874	1,081	5,088	3,644
Colored enrollment.....	152,273	265	74	1,180	1,601	526	40	39		169	405
Number of private schools.....											
Private school enrollment, elementary and high.....											
Public and private school enrollment.....											
Per cent enrolled in private schools.....											

PUBLIC SCHOOLS.

39	Average attendance.....	332,546	3,108	1,718	2,398	8,447	2,848	2,783	748	716	3,486	2,317
40	White.....	242,798	2,300	1,060	2,205	7,315	2,210	2,709	736	716	3,378	2,101
41	Colored.....	89,748	808	658	193	1,132	638	783	82.6	63.2	108	216
42	Number attending daily in each 100 enrolled.....	83.2	83.2	69.8	84.0	68.3	57.9	62.1	64.2	68.2	68.3	57.6
43	White.....	83.2	83.2	69.8	84.0	68.3	57.9	62.1	64.2	68.2	68.3	57.6
44	Colored.....	78.5	78.5	78.3	82.5	70.7	62.4	62.5	28.7	40.6	63.9	53.3
45	Number attending daily in each 100 of 6 to 20 years of age.....	42.3	74.1	59.8	33.4	59.9	33.5	53.3	63.2	40.6	46.1	40.8
46	Length of session, in days.....	108.7	78.0	80.1	73.5	140.4	100.8	108.7	83.8	80.0	124.4	102.7
47	Number of days each child enrolled attended.....	68.6	64.8	55.9	25.5	66.3	58.3	67.5	69.2	52.9	72.4	58.7
48	Number of days each child 6 to 20 years of age attended.....	45.7	57.7	47.8	24.5	71.4	33.7	57.9	43.7	32.4	57.3	41.3
49	Number of teachers.....	11,915	77	57	120	247	87	88	17	26	100	95
50	Enrollment per teacher.....	44	48	43	57	354	50	50	53	41	52	42
51	Teachers' salaries.....	\$2,327,239	\$10,118	\$6,905	\$13,713	\$63,384	\$16,601	\$17,616	\$1,977	\$3,240	\$21,844	\$15,799
52	Average annual salary.....	\$195	\$131	\$121	\$114	\$377	\$190	\$200	\$116	\$124	\$218	\$166
53	Teachers with normal training.....	4,945	9	57	9	132	23	14	5	3	26	24
54	Per cent of teachers with normal training.....	41.5	11.7	100	7.5	53.4	26.4	15.9	26.4	11.5	26.0	25.2
55	Teachers holding third-grade certificates.....	154	1	1	1	1	1	4	1	1	2	2
56	Per cent of teachers holding third-grade certificates.....	1.2	1.7	1.7	1.7	1.7	1.7	4.5	1.7	1.7	2.0	2.0
57	Total school expenditures.....	\$4,078,120	\$17,199	\$15,236	\$17,505	\$151,017	\$27,914	\$32,409	\$6,587	\$7,475	\$41,119	\$23,301
58	Amount received from State.....	\$281,279	\$4,041	\$5,553	\$4,993	\$4,334	\$3,275	\$1,853	\$2,247	\$815	\$1,863	\$2,726
59	Per cent received from State.....	6.9	26.9	36.6	28.5	2.8	12.0	5.7	34.1	10.9	4.5	11.6
60	Expenditure per child enrolled.....	\$7.75	\$4.61	\$6.19	\$2.53	\$12.20	\$6.34	\$7.23	\$7.29	\$5.91	\$7.82	\$5.75
61	Per cent of expenditures used for teachers' salaries.....	\$5.19	\$4.09	\$5.30	\$2.45	\$9.06	\$3.68	\$6.24	\$4.61	\$4.24	\$5.44	\$4.06
62	Tuition per child 6 to 20 years of age.....	57.0	53.7	45.3	78.3	61.8	59.8	54.3	30.0	43.3	53.1	67.7
63	Tuition per child enrolled.....	\$4.41	\$2.70	\$2.80	\$1.98	\$7.53	\$3.79	\$3.92	\$2.18	\$2.55	\$4.15	\$3.89
64	Tuition per child 6 to 20 years of age.....	\$2.95	\$2.40	\$2.40	\$1.91	\$5.59	\$2.20	\$3.38	\$1.38	\$1.83	\$2.83	\$2.74
65	Value of school buildings.....	\$7,380,616	\$14,952	\$25,325	\$30,495	\$319,180	\$47,100	\$116,465	\$5,000	\$4,675	\$72,900	\$45,525
66	Average value of school building.....	\$949	\$271	\$633	\$252	\$268	\$713	\$1,974	\$333	\$194	\$1,221	\$758
67	Number of school libraries.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
68	Number of volumes in libraries.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
69	Average number of volumes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
70	Circulating libraries used.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
71	Enrolled in high school.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
72	Enrolled in high school from every 100 of population 6 to 20 years of age.....	14,401	150	31	30	498	151	126	42	.....	301	103
73	.....	1.83	3.57	1.07	0.42	2.98	1.99	2.42	.....	.....	3.98	1.79

1 No data.

School statistics of North Carolina—Continued.

[The mountain counties are in *italic*.]

	Jackson County.	Macon County.	Madison County.	Mo-Dowell County.	Polk County.	Rutherford County.	Stokes County.	Surry County.	Swain County.	Transylvania County.	Wilkes County.	Yancey County.
Population:												
1 Total.....	12,998	12,191	20,132	13,538	7,640	28,385	20,151	29,705	10,403	7,191	30,282	12,072
2 White.....	11,945	11,616	19,700	11,458	6,546	24,097	17,582	27,068	9,406	6,553	27,691	11,839
3 Colored.....	1,053	1,575	432	2,080	1,094	4,288	2,569	2,632	457	638	2,591	1,233
4 Per cent colored.....	4.6	4.7	2.1	15.4	14.3	15.1	12.7	8.9	1.8	8.9	8.6	1.9
5 Foreign white.....	13	14	14	17	25	18	2	140	9	24	9	3
6 Per cent foreign white.....	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.5	0.1	0.3	0.1	0.1
7 Native white of native parentage.....	11,894	11,562	19,653	11,381	6,478	24,039	17,571	26,832	9,386	6,481	27,666	11,826
8 Per cent native white of native parentage.....	91.5	94.8	97.6	84.1	84.8	84.7	87.2	90.3	90.2	90.1	91.4	98.0
9 Urban.....												
10 Rural.....	12,998	12,191	20,132	13,538	7,640	28,385	20,151	29,705	10,403	7,191	30,282	12,072
11 Largest city or village.....	698	379	802	1,519	7,000	1,592	480	3,844	3,861	919	1,902	472
12 Rural per square mile.....	26.3	23.8	46.2	30.6	30.4	52.2	42.0	49.7	18.8	19.0	41.2	40.5
13 Area, square miles.....	494	513	436	443	251	544	480	520	553	379	735	298
14 Average area (sq. mi.) to each white school.....	10.2	8.8	6.1	8.5	7.1	6.8	7.0	5.6	11.3	14.0	5.7	5.9
15 Number of white schools.....	48	58	71	52	35	79	68	92	49	27	128	50
16 Schools necessary to provide one for each 12 square miles.....	42	43	37	37	21	46	40	44	47	32	62	25
17 Population 6 to 20 years of age per school.....	95	71	100	78	60	100	97	102	77	65	74	86
18 Population 6 to 20 years of age for each 12 square miles.....	113	103	203	132	128	223	190	242	80	67	174	179
19 Number of one-teacher schools.....	32	50	60	45	42	70	49	70	42	19	116	35
20 Per cent of one-teacher schools.....	64.0	80.7	80.0	72.6	93.4	68.7	62.9	67.4	85.8	57.6	179	67.4
21 Population 10 years of age and over.....	9,099	8,470	13,855	9,603	5,380	19,903	13,731	20,814	7,091	5,132	21,226	8,367
22 Illiterate.....	1,492	1,151	2,651	1,196	898	3,507	3,171	4,351	1,396	675	4,610	1,667
23 Per cent illiterate.....	16.6	13.6	19.1	12.4	16.7	17.6	23.1	20.9	19.7	13.2	21.7	19.9
24 Native white 10 years of age and over.....	8,260	8,066	13,530	8,098	4,666	16,933	11,965	18,774	6,376	4,651	19,399	8,199
25 Illiterate.....	1,260	1,032	2,535	794	690	2,890	2,447	3,573	1,149	543	4,214	1,601
26 Per cent illiterate.....	15.3	12.8	18.7	9.8	18.1	15.3	20.5	19.0	18.0	11.7	21.7	19.5
27 Population 10 to 20 years of age.....	3,299	3,046	5,274	3,441	1,998	7,248	5,185	7,454	2,586	1,742	7,597	3,199
28 Illiterate.....	290	183	475	230	237	888	618	837	300	149	859	328
29 Per cent illiterate.....	8.8	6.0	9.1	6.7	12.5	12.3	11.9	11.2	11.6	8.6	11.0	10.2
30 Population 6 to 20 years of age.....	4,751	4,432	7,517	4,897	2,702	10,203	7,622	10,682	2,486	2,486	10,864	4,496
31 School enrollment (public).....	3,251	3,282	6,498	4,867	1,618	6,885	4,869	7,623	2,630	1,751	8,388	3,434
32 Number enrolled from each 100 of 6 to 20 years of age.....	67.9	73.7	92.5	84.9	56.1	67.0	63.7	71.4	77.6	69.6	77.2	76.6
33 Colored enrollment.....	3,047	3,140	6,868	3,813	1,244	5,778	4,323	7,004	2,880	1,653	7,551	3,365
34 Private school enrollment.....	184	142	150	309	274	1,107	536	624	30	78	834	69
35 Number of private schools.....												
36 Private school enrollment, elementary and high.....												
37 Public and private school enrollment.....												
38 Per cent enrolled in private schools.....												

PUBLIC SCHOOLS.

39	Average attendance.....	1,877	2,331	5,222	3,216	996	4,525	2,550	4,453	1,515	1,024	4,910	1,394
40	White.....	1,777	2,341	5,106	2,996	783	3,913	2,313	4,110	1,494	963	4,345	1,346
41	Colored.....	100	90	116	173	213	612	237	348	21	56	585	18
42	Number attending daily in each 100 enrolled.....	57.7	70.9	75.0	77.3	65.9	65.7	52.4	53.4	51.7	59.1	58.5	39.7
43	White.....	57.9	71.4	75.0	77.2	62.9	77.7	53.5	53.6	51.9	58.5	57.5	40.0
44	Colored.....	54.4	63.4	77.3	71.2	77.7	55.3	44.2	55.7	70.0	71.8	67.7	28.1
45	Number attending daily in each 100 of 6 to 20 years of age.....	39.1	52.2	69.3	65.6	38.9	44.0	33.3	41.6	40.1	41.1	45.1	30.4
46	Length of session, in days.....	101.0	88.2	80.9	122.5	83.7	112.4	81.6	80.0	83.4	113.6	94.8	80.0
47	Number of days each child enrolled attended.....	58.2	62.5	60.6	94.6	55.1	73.8	42.7	50.2	43.2	70.0	55.4	31.7
48	Number of days each child 6 to 20 years of age attended.....	39.4	46.0	56.0	80.3	30.8	49.4	27.1	35.7	37.4	48.7	42.7	24.3
49	Number of teachers.....	78	76	103	84	45	147	97	151	63	46	189	70
50	Enrollment per teacher.....	41	43	67	49	33	46	50	50	46	37	44	44
51	Teachers' salaries.....	\$14,772	\$13,545	\$14,120	\$17,067	\$5,248	\$20,331	\$13,983	\$22,387	\$11,356	\$9,006	\$27,333	\$8,251
52	Average annual salary.....	\$189	\$178	\$137	\$210	\$116	\$141	\$144	\$148	\$190	\$215	\$144	\$117
53	Teachers with normal training.....	73	21	45	55	7	48	29	84	20	18	83	14
54	Per cent of teachers with normal training.....	93.5	27.6	43.6	65.4	15.5	32.6	29.8	55.6	31.7	39.1	46.5	20.0
55	Teachers holding third-grade certificates.....	3	3						3	3		3	5
56	Per cent of teachers holding third-grade certificates.....												
57	Total school expenditures.....	\$26,317	\$17,068	\$38,385	\$33,674	\$7,303	\$28,515	\$23,608	\$37,072	\$21,234	\$17,414	\$36,796	\$13,558
58	Amount received from State.....	\$4,618	\$2,009	\$3,738	\$2,412	\$1,176	\$2,542	\$3,936	\$2,864	\$1,337	\$4,068	\$7,613	\$3,997
59	Per cent received from State.....	17.5	16.2	9.7	7.1	16.1	8.9	16.6	7.6	6.2	23.5	20.6	29.4
60	Expenditure per child enrolled.....	\$8.09	\$6.20	\$5.61	\$8.09	\$4.81	\$4.14	\$4.85	\$4.86	\$7.28	\$10.06	\$4.38	\$3.94
61	Expenditure per child 6 to 20 years of age.....	\$5.50	\$3.84	\$5.10	\$6.87	\$2.70	\$2.77	\$3.09	\$3.47	\$5.62	\$7.01	\$3.38	\$3.01
62	Per cent expenditures used for teachers' salaries.....	56.1	79.2	36.8	52.4	71.8	73.0	59.2	60.4	53.4	56.8	74.2	60.8
63	Tuition per child enrolled.....	\$4.53	\$4.11	\$2.02	\$4.24	\$3.45	\$3.02	\$2.87	\$2.83	\$3.88	\$5.71	\$3.24	\$2.39
64	Tuition per child 6 to 20 years of age.....	\$3.08	\$3.04	\$1.87	\$3.59	\$1.93	\$2.02	\$1.82	\$2.09	\$3.00	\$3.97	\$2.50	\$1.83
65	Value of school buildings.....	\$47,660	\$24,205	\$49,925	\$68,500	\$6,900	\$74,374	\$42,400	\$97,140	\$30,175	\$36,120	\$73,312	\$21,575
66	Average value of school building.....	\$238	\$398	\$658	\$911	\$155	\$722	\$543	\$632	\$656	\$1,204	\$492	\$561
67	Number of school libraries.....												
68	Number of volumes in libraries.....												
69	Average number of volumes.....												
70	Circulating libraries used.....												
71	Enrolled in high school.....	22	64	96	169	53	75	151	101	73	39	91	57
72	Enrolled in high school from every 100 of population 6 to 20 years of age.....	0.46	1.43	1.30	3.45	1.96	0.73	1.98	0.94	1.93	1.56	0.83	1.26

1. No data.

School statistics of North Carolina and South Carolina.

[The mountain counties are in *italics*.]

	North Carolina—continued.						South Carolina.				
	Ashevy County.	Caldwell County.	Mitchell County.	Watauga County.	Group.	Entire State.	Charlotte County.	Greenville County.	Oconee County.	Pickens County.	Spartanburg County.
Population:											
1 Total.....		20,579	17,245	13,556	.....	1,515,400	26,179	68,377	27,337	25,422	83,465
2 White.....		18,163	16,902	13,289	.....	879,161	17,669	47,515	20,489	19,952	57,048
3 Colored.....		2,416	343	246	.....	886,843	8,510	20,861	6,848	5,470	26,410
4 Per cent colored.....		11.7	2.0	1.8	.....	58.2	32.5	30.5	25.1	21.4	31.6
5 Foreign white.....		14	17	1	.....	6,064	26	312	84	13	542
6 Per cent foreign white.....		0.1	0.1	.....	.....	0.4	0.1	0.5	0.3	0.1	1.0
7 Native whites of native parentage.....		18,104	16,864	13,278	.....	601,970	17,580	46,747	20,221	19,946	56,536
8 Per cent of native parentage.....		88.0	97.7	97.9	.....	43.7	67.2	68.4	74.0	78.5	67.7
9 Urban.....		3,364	3,364	3,556	.....	224,832	4,767	15,741	2,953	2,953	17,817
10 Rural.....		17,215	17,245	13,556	.....	1,260,568	21,412	52,636	27,387	22,439	66,946
11 Of largest city or village.....		3,364	416	261	.....	58,853	4,767	15,741	1,866	2,953	17,817
12 Rural, per square mile.....		33.6	46.5	39.6	.....	42.3	57.4	68.2	42.1	42.4	86.2
13 Area, square miles.....		512	371	342	.....	30,495	373	781	600	329	765
14 Average area (square miles) to each white school.....		.....	.....	.....	.....	11.5	6.1	6.0	8.5	8.5	8.2
15 Number of white schools.....		.....	.....	.....	.....	1,225	61	126	76	62	146
16 Schools necessary to provide one for each 12 square miles.....	45	72	46	64	227	2,635	.....	.....	.....	.....	.....
Population 6 to 20 years of age to each school.....	.....	.....	.....	.....	203	2,542	32	64	55	45	64
Population 6 to 20 years of age to each 12 square miles.....	.....	.....	.....	.....	77	11	133	104	135	104	135
Number of one-teacher schools.....	.....	.....	.....	.....	93	1,690	106	333	186	208	479
Number of one-teacher schools, per cent of one-teacher schools.....	.....	.....	.....	.....	.....	1,690	106	333	186	208	479
Population 10 years of age and over.....	.....	.....	.....	.....	.....	1,078,161	18,374	49,157	19,168	17,587	59,419
Population 10 years of age and over, per cent of population.....	.....	.....	.....	.....	.....	71.2	33.9	71.9	33.9	33.9	71.9
Population of illiterate.....	.....	.....	.....	.....	.....	487,909	12,451	34,094	14,301	13,805	45,801
Native white 10 years of age and over.....	.....	.....	.....	.....	.....	50,245	2,024	3,792	2,212	2,023	5,801
Illiterate.....	.....	.....	.....	.....	.....	10.3	16.3	11.2	15.5	14.7	15.5
Population 10 to 20 years of age.....	.....	.....	.....	.....	.....	399,157	6,986	17,592	7,317	6,548	21,890
Population 10 to 20 years of age, per cent of population.....	.....	.....	.....	.....	.....	26.3	12.7	26.3	12.7	12.7	26.3
Illiterate.....	.....	.....	.....	.....	.....	19.1	18.4	13.5	14.2	17.5	18.3
Population 6 to 20 years of age.....	.....	.....	.....	.....	.....	564,260	9,865	24,523	10,243	9,398	30,712
Population 6 to 20 years of age, per cent of population.....	.....	.....	.....	.....	.....	331,587	6,080	15,930	6,905	6,116	20,548
School enrollment (public).....	.....	.....	.....	.....	.....	58.7	61.6	64.9	65.0	65.0	66.9
Number enrolled from each 100 of 6 to 20 years of age.....	.....	.....	.....	.....	.....	70.7	41.6	10,680	5,031	4,731	13,284
White enrollment.....	.....	.....	.....	.....	.....	156,280	4,116	10,680	5,031	4,731	13,284
Colored enrollment.....	.....	.....	.....	.....	.....	175,307	1,964	5,260	1,874	1,385	7,284
Number of private schools.....	56	558	33	60	.....	.....	.....	.....	.....	.....	.....

School statistics of Tennessee.

[The mountain counties are in *italic*.]

	Entire State.	Anderson County.	Bledsoe County.	Bloount County.	Bradley County.	Campbell County.	Carter County.	Claiborne County.	Clay County.	Cocke County.	Cumberland County.	De Kalb County.
1	Population:											
2	Total.....	2,184,789	17,717	6,329	20,809	16,336	27,387	23,504	9,009	19,399	9,327	15,434
3	White.....	1,711,432	16,796	5,938	19,584	14,610	25,473	22,684	8,720	18,348	9,264	14,699
4	Colored.....	473,088	921	391	1,221	1,717	1,887	819	289	1,051	63	1,835
5	Per cent of colored. %	21.7	5.2	6.2	5.9	10.5	6.9	3.5	3.2	5.6	0.7	5.4
6	Foreign white.....	18,459	61	13	38	60	335	193	1	16	42	64
7	Per cent of foreign white.....	0.8	0.3	0.2	0.2	0.4	1.2	0.8	0.1	0.1	0.5	0.3
8	Native white of native parentage.....	1,654,606	16,585	5,898	19,455	14,420	24,804	22,388	8,713	18,284	9,117	14,566
9	Per cent of native white of native parentage.....	75.7	93.6	93.2	93.5	88.3	90.6	95.3	96.7	94.3	97.7	94.5
10	Urban.....	441,045	17,717	6,329	20,809	10,787	2,816	23,504	9,009	19,399	9,327	15,434
11	Of largest city or village.....	1,743,779	1,102	16.2	2,381	10,787	2,816	23,504	9,009	19,399	9,327	15,434
12	Rural per square mile.....	131,105	52.6	16.2	38.4	32.1	53.0	886	467	2,003	763	49.6
13	Area, square miles.....	41,687	337	391	571	356	461	50.2	35.5	45.4	14.2	49.6
14	Average area (square miles) per white school.....	7.2	5.1	10.5	6.2	7.8	4.9	5.3	5.9	4.7	6.5	31.1
15	Number of white schools.....	5,750	66	37	91	43	93	188	43	85	38	66
16	Schools necessary to provide one for each 12.....	3,474	29	33	48	38	39	89	22	46	55	26
17	Square miles to 30 years of age per school.....	123	90	53	73	116	101	92	72	76	56	70
18	Population 6 to 20 years of age for each 12.....	212	223	66	184	149	255	225	145	253	60	209
19	Number of one-teacher schools, white and colored.....	5,283	53	33	88	41	72	.....	37	75	53	52
20	Per cent of one-teacher schools.....	85.7	73.6	80.4	87.1	83.6	73.4	.....	84.0	81.6	89.8	67.5
21	Population 10 years of age and over.....	1,621,179	12,886	4,421	14,860	12,074	18,626	16,376	6,198	13,520	6,442	11,025
22	Illiterate.....	221,071	1,888	451	1,405	1,405	3,025	2,878	1,046	2,700	696	1,811
23	Per cent of illiterate.....	13.6	14.8	10.9	9.4	11.6	16.0	17.6	16.9	20.6	10.8	18.4
24	Native white 10 years of age and over.....	1,242,319	11,814	4,128	13,927	10,727	17,103	15,623	5,987	12,753	6,357	10,397
25	Illiterate.....	120,966	1,960	565	1,431	1,077	2,867	2,616	963	2,579	681	1,611
26	Per cent of illiterate.....	9.7	14.4	13.7	10.3	10.0	15.0	16.7	16.1	20.2	10.7	15.5
27	Population 10 to 20 years of age.....	526,103	4,904	1,529	5,195	4,083	6,900	6,114	2,179	4,420	2,344	3,841
28	Illiterate.....	42,279	238	102	229	311	646	673	204	99	99	830
29	Per cent of illiterate.....	8.0	5.2	6.7	4.4	7.6	9.4	11.0	9.4	8.1	4.3	8.6
30	Population 6 to 20 years of age.....	738,478	6,400	2,191	7,396	5,688	9,960	8,777	3,183	7,078	3,339	5,451
31	School enrollment (public).....	539,911	4,370	1,796	5,557	3,799	7,331	5,533	2,786	5,726	2,801	4,644
32	6 to 20.....	73.1	67.3	81.9	75.1	66.7	73.6	63.0	87.2	81.0	83.8	85.1
33	White enrollment.....	431,056	4,183	1,721	5,181	3,449	7,131	5,436	2,744	5,467	2,790	4,398
34	Colored enrollment.....	101,309	187	75	5,376	350	200	97	43	269	11	246
35	Number of private schools.....	104	1	1	1	3	1	1	1	1	3	1
36	Private-school enrollment.....	14,813	180	.....	300	200	.....	.....	.....	.....	430	125

37	Public and private school enrollment.	554,724	4,550	7,090	5,888	7,380	3,380	3,231	4,779
38	Per cent enrolled in private schools.	2.6	8.9	3.8	3.3	2.3	2.3	13.3	2.6
PUBLIC SCHOOLS.									
39	Average attendance.....	368,883	3,193	3,649	2,565	3,329	2,443	1,704	3,688
40	White.....	299,304	3,033	3,536	2,338	3,127	2,376	1,978	3,335
41	Colored.....	69,523	160	313	227	145	276	164	353
42	Number attending daily in each 100 enrolled.....	68.3	73.0	65.6	67.5	74.2	65.9	61.1	64.3
43	White.....	68	71	64	67	74	65	61	64
44	Colored.....	68	85	83	67	72	78	61	57
45	Attending daily in each 100 of population 6 to 20.....	49.9	49.1	49.2	45.0	46.1	27.7	53.2	52.0
46	Length of session, in days.....	130	107	126	141	126	1100	90	97
47	Number of days each child enrolled attended.....	88.7	78.1	88.7	95.1	81.0	44.1	54.9	62.3
48	Number of days each child 6 to 20 years of age attended.....	64.8	52.5	61.9	63.4	58.0	27.7	47.8	50.4
49	Number of teachers.....	11,437	108	115	77	137	117	52	111
50	Enrollment per teacher.....	47	40	33	49	53	56	53	51
51	Teachers' salaries.....	\$3,469,034	\$31,253	\$25,074	\$27,832	\$35,267	\$16,446	\$8,160	\$19,923
52	Average annual salary.....	\$304	\$289	\$218	\$361	\$257	\$153	\$158	\$179
53	Normal trained teachers.....	752					1		6
54	Per cent of teachers with normal training.....	6.7				10.6		6.6	6.6
55	Third-grade certificates issued.....	7,832	76	114	55	155	84	94	115
56	Per cent of third-grade certificates.....	76	75	88	67	100	90	93	91
57	Total school expenditures.....	\$5,537,030	\$37,381	\$33,798	\$42,605	\$45,036	\$25,002	\$12,049	\$34,062
58	Amount received from the State.....	\$891,828	\$7,046	\$7,593	\$6,182	\$11,874	\$8,181	\$9,953	\$7,191
59	Per cent received from the State.....	15	18	22	14	26	31	74	21
60	Expenditure per child enrolled.....	\$10.25	\$8.55	\$9.08	\$11.21	\$8.14	\$5.06	\$4.32	\$5.93
61	Expenditure per child 6 to 20 years of age.....	\$7.49	\$5.75	\$4.56	\$7.47	\$4.51	\$3.54	\$3.76	\$4.80
62	Per cent of expenditures used for teachers' salaries.....	62.6	83.6	74.1	65.3	78.3	74.2	67.7	58.4
63	Tuition per child enrolled.....	\$6.41	\$7.14	\$4.50	\$7.32	\$4.80	\$3.75	\$2.92	\$3.46
64	Tuition per child 6 to 20 years of age.....	\$4.68	\$4.80	\$3.37	\$4.65	\$3.53	\$2.62	\$2.54	\$2.80
65	Value of school buildings.....	\$10,977,177	\$41,745	\$9,400	\$60,800	\$82,000	\$25,000	\$25,000	\$42,618
66	Average value of school building.....	\$1,590	\$564	\$613	\$1,240	\$867	\$878	\$500	\$513
67	Number of school libraries.....	1,378	45	14	34	14	14	7	7
68	Number of volumes in libraries.....	97,737	4,848	1,980	1,980	690	690	555	555
69	Average number of volumes in a library.....	70	107	57	57	42	42	79	79
70	Circulating libraries.....	113							
71	Enrolled in high school.....	13,461	482		192	316	24	75	154
72	Enrolled in high school in every 100 of population 6 to 20.....	1.82	7.11		2.84	3.17	0.33		2.17

In 1911.

* Considered total expenditure in country as teachers' salaries.

* County organized in 1912.

School statistics of Tennessee—Continued.

[The mountain counties are in *italic*.]

	DeKalb County.	Greene County.	Grundy County.	Hamblen County.	Hamilton County.	Hancock County.	Hawkins County.	James County.	Jefferson County.	Johnson County.
Population:										
1 Total.....	7,446	31,083	8,322	13,680	89,267	10,778	23,587	5,210	17,755	13,101
2 White.....	7,348	29,713	8,163	12,040	86,239	10,297	21,782	4,718	16,116	12,814
3 Colored.....	98	1,369	143	1,640	26,026	481	1,805	492	1,639	287
4 Per cent of colored.....	1.3	4.4	1.7	11.8	29.2	4.5	7.7	9.4	9.2	2.9
5 Foreign white.....	59	21	104	9	1,893	33	13	8	20	7
6 Per cent of foreign white.....	0.8	0.1	1.2	0.1	2.1	0.1	0.1	0.2	0.1	0.1
7 Native white of native parentage.....	7,187	29,598	7,818	11,970	87,678	10,288	21,708	4,676	16,064	12,778
8 Per cent of native white of native parentage.....	96.5	95.2	93.9	87.7	97.7	95.5	92.0	89.8	90.4	96.9
9 Urban.....	7,446	31,083	8,322	13,680	89,267	10,778	23,587	5,210	17,755	13,101
10 Rural.....	15.3	1,920	23.2	4,007	44,034	10,778	1,242	5,210	17,755	13,101
11 Of largest city or village.....	45.2	80.7	23.2	4,007	44,034	10,778	1,242	5,210	17,755	13,101
12 Rural per square mile.....	5.7	61.5	23.2	61.0	106.2	47.3	48.9	31.6	1,238	592
13 Area, square miles.....	97	513	375	158	409	228	48.9	31.6	1,238	44.9
14 Average area (square miles) per white school.....	5.4	5.1	13.5	4.4	6.8	4.5	5.1	7.3	31.2	29.4
15 Number of white schools.....	40	150	30	34	60	17	46	21	63	63
16 Schools necessary to provide one for each 12 square miles.....	23	52	32	14	33	19	41	23	38	25
17 Population necessary to provide one for each 12 square miles.....	51	188	95	328	794	204	297	120	240	194
18 Population 6 to 20 years of age.....	51	188	95	328	794	204	297	120	240	194
19 Number of one-teacher schools, white and colored.....	100	321	69.3	73.9	27.7	93.7	98.1	68.0	70.4	63.8
20 Per cent of one-teacher schools.....	100	321	69.3	73.9	27.7	93.7	98.1	68.0	70.4	63.8
21 Population 10 years of age and over.....	5,064	22,464	5,865	10,207	70,081	7,260	16,960	8,795	12,950	9,158
22 Illiterate.....	813	1,485	1,093	1,093	6,370	1,810	3,042	600	1,870	1,611
23 Per cent of illiterate.....	16.2	13.2	15.1	10.7	9.1	24.9	17.9	15.9	14.0	17.6
24 Native white 10 years of age and over.....	4,920	21,446	5,635	8,980	47,052	6,928	15,526	8,415	11,718	8,903
25 Illiterate.....	4,797	2,648	8,846	2,066	2,066	1,834	2,578	440	1,505	1,542
26 Per cent of illiterate.....	16.2	12.3	15.0	8.8	4.4	26.6	16.6	12.9	12.8	17.3
27 Population 10 to 20 years of age.....	1,881	7,530	2,153	3,295	19,621	2,681	6,010	1,269	4,445	3,888
28 Illiterate.....	105	7,530	2,153	3,295	19,621	2,681	6,010	1,269	4,445	3,888
29 Per cent of illiterate.....	5.7	7.6	10.9	4.1	9.9	9.9	8.6	8.7	6.2	6.5
30 Population 6 to 20 years of age.....	2,687	11,135	3,058	4,600	26,770	3,929	8,596	1,907	6,265	4,851
31 School enrollment (public).....	2,043	7,801	2,214	3,692	17,437	3,057	6,466	1,278	5,643	3,523
32 Number enrolled from each 100 of population 6 to 20.....	76.0	70.0	72.4	80.2	65.1	77.8	75.8	70.7	90.0	72.6
33 White enrollment.....	2,025	7,806	2,178	3,393	13,141	3,034	6,044	1,144	5,156	3,410
34 Colored enrollment.....	18	150	36	389	4,596	23	2	133	487	113
35 Number of private schools.....	2	1	2	8	8	1	2	1	1	1
36 Private-school enrollment.....	180	442	42	725	725	1	2	140	397	397
37 Public and private school enrollment.....	7,981	2,656	18,162	18,162	18,162	1,418	6,655	1,418	6,040	6,040
38 Per cent enrolled in private schools.....	2.2	16.6	2.8	3.9	3.9	9.5	2.8	9.5	6.5	6.5

PUBLIC SCHOOLS.

39	Average attendances.....	1,299	3,844	5,809	11,529	2,479	12,634	2,101	4,317	775	4,219	2,334
40	White.....	1,285	3,249	5,649	11,504	2,463	9,476	2,084	4,069	700	3,810	2,285
41	Colored.....	14	95	160	25	226	8,168	17	258	75	407	79
42	Number attending daily in each 100 enrolled.....	63.5	78.3	74.4	66.9	67.1	72.4	69.0	66.7	60.6	74.7	66.2
43	White.....	63	79	74	69	78	72	68	67	61	73	68
44	Colored.....	77	68	52	60	58	73	73	61	67	83	69
45	Attending daily in each 100 of population 6 to 20.....	48.2	68.7	52.0	50.6	53.8	47.1	53.6	50.5	42.8	58.2	40.8
46	Length of session, in days.....	60	95	93	98	131	137	101	104	85	88	104
47	Number of days each child enrolled attended.....	50.8	74.7	61.7	67.6	87.9	113.6	69.6	69.3	51.4	66.7	68.6
48	Number of days each child 6 to 20 years of age attended.....	38.5	66.2	44.1	49.5	70.4	73.9	54.1	52.5	36.5	51.2	42.4
49	Number of teachers.....	57	67	109	47	79	439	58	120	37	113	70
50	Enrollment per teacher.....	55	63	49	47	79	439	58	120	37	113	70
51	Teachers' salaries.....	\$9,997	\$13,616	\$27,339	\$9,765	\$21,796	\$287,682	\$9,938	\$19,873	\$7,665	\$18,679	\$14,701
52	Average annual salary.....	\$176	\$203	\$111	\$207	\$275	\$686	\$171	\$113	\$207	\$165	\$210
53	Normal trained teachers.....	3	6	10	6	21	114	3	114	0	116	5
54	Per cent of teachers with normal training.....	3.6	6.2	1.0	12.7	28.5	11.4	3.6	11.6	0	11.6	5
55	Third-grade certificates issued.....	76	184	134	41	54	224	87	193	34	83	58
56	Per cent of third-grade certificates.....	100	89	85	73	54	88	87	85	104	74	74
57	Total school expenditures.....	\$19,258	\$17,097	\$39,132	\$11,823	\$34,051	\$440,189	\$14,008	\$28,733	\$12,205	\$32,802	\$21,912
58	Per cent of expenditures from the State.....	\$3,246	\$6,284	\$12,619	\$3,987	\$4,667	\$25,417	\$5,568	\$10,179	\$2,408	\$7,181	\$5,453
59	Amount received from the State.....	16	86	32	33	13	05	39	39	20	21	21
60	Per cent of expenditures used for teachers' salaries.....	\$9.42	\$4.02	\$5.01	\$5.34	\$9.22	\$25.24	\$4.38	\$3.97	\$9.50	\$5.81	\$6.21
61	Expenditure per child 6 to 20 years of age.....	\$7.15	\$3.51	\$3.50	\$3.86	\$7.39	\$16.43	\$3.40	\$3.00	\$6.78	\$5.22	\$4.50
62	Per cent of expenditures used for teachers' salaries.....	51.3	79.6	69.8	82.6	64.0	65.3	71.0	77.2	62.7	59.9	67.0
63	Tuition per child enrolled.....	\$4.83	\$3.19	\$3.46	\$4.41	\$5.90	\$16.48	\$3.10	\$3.06	\$6.01	\$3.30	\$4.16
64	Tuition per child 6 to 20 years of age.....	\$3.66	\$2.79	\$2.44	\$3.18	\$4.72	\$10.72	\$2.41	\$2.31	\$4.25	\$2.97	\$3.01
65	Value of school buildings.....	\$9,400	\$35,000	\$51,900	\$195,700	\$70,000	\$920,000	\$15,320	\$44,000	\$12,000	\$51,580	\$32,000
66	Average value of school building.....	\$195	\$600	\$402	\$8,115	\$1,521	\$11,064	\$444	\$462	\$521	\$706	\$744
67	Number of school libraries.....	1	4	250	5	16	25	23	24	14	14	3
68	Number of volumes in libraries.....	200	250	62	12	831	2,500	1,485	610	1,150	81	1
69	Average number of volumes in a library.....	200	62	12	12	15	100	64	25	81	1	1
70	Circulating libraries.....	100	12	12	12	15	100	64	25	81	1	1
71	Enrolled in high school.....	100	12	12	12	15	100	64	25	81	1	1
72	Enrolled in high school in every 100 of population 6 to 20.....	3.72	1.01	4.66	1.98	78	0.15	1.66	53	2.93	104	3.75

* Estimated.

† In 1911.

School statistics of Tennessee—Continued.

[The mountain counties are in *italics*.]

	Knox County.	Loudon County.	McMinn County.	Macon County.	Marion County.	Meigs County.	Monroe County.	Morgan County.	Oberlin County.	Pickett County.	Polk County.	Putnam County.
Population:												
1 Total.....	94,187	13,612	21,046	14,559	18,820	6,131	20,716	11,458	15,854	5,087	14,116	20,023
2 White.....	81,476	12,648	19,154	13,732	16,831	5,565	19,536	10,767	15,555	5,076	13,832	19,131
3 Colored.....	12,709	964	1,892	808	2,289	9.2	1,167	6.0	1.9	0.2	2.0	892
4 Per cent colored.....	13.5	7.1	9.0	5.0	12.2	9.2	5.6	6.0	1.9	1.1	2.0	4.5
5 Foreign white.....	1,084	13	33	5	153	3	27	168	20	.....	93	11
6 Per cent foreign white.....	1.2	0.1	0.2	0.2	0.8	0.1	0.1	1.5	0.1	.....	0.7	0.1
7 Native white of native parentage.....	77,885	12,560	19,036	13,808	16,072	5,552	19,461	10,142	15,494	5,073	13,622	19,077
8 Per cent of native white of native parentage.....	82.7	92.5	90.4	94.8	85.4	90.6	93.9	88.5	92.3	99.7	94.5	95.3
9 Urban.....	41,472	3,392	21,046	14,559	18,820	6,131	20,716	11,458	15,854	5,087	14,116	20,023
10 Rural.....	52,715	10,220	2,284	678	2,106	30.8	1,850	1,858	1,421	31.4	32.7	1,848
11 Of largest city or village.....	36,346	3,392	2,284	678	2,106	30.8	1,850	1,858	1,421	31.4	32.7	1,848
12 Rural, per square mile.....	104.6	46.7	48.7	50.9	37.3	30.8	30.8	21.7	35.5	16.2	43.2	40.4
13 Area, square miles.....	804	219	432	286	504	199	673	529	446	5.0	8.6	5.5
14 Average area (square miles) per white school.....	3.9	4.6	5.4	4.7	10.5	6.6	9.1	9.2	5.4	3.2	5.0	7.3
15 Number of white schools.....	128	46	80	60	48	30	74	57	182	14	36	34
16 Schools necessary to provide one for each 12 square miles.....	42	19	36	24	42	17	57	45	38	14	36	34
17 Population 6 to 20 years of age per school.....	193	96	88	80	113	61	94	66	66	57	91	89
18 Population 6 to 20 years of age for each 12 square miles.....	731	263	209	215	154	126	132	86	147	132	132	210
19 Number of one-teacher schools, white and colored.....	60	46	66	52	38	29	70	49	147	32	39	69
20 Per cent of one-teacher schools.....	47.7	82.1	77.6	81.2	66.6	82.8	87.5	84.4	11.1	32	75.0	86.2
21 Population 10 years of age and over.....	73,016	9,864	15,011	10,425	13,406	4,236	14,465	8,131	11,119	3,552	9,811	14,005
22 Per cent of illiterate.....	6.8	1.7	1.8	1.8	1.7	1.7	2.1	1.7	1.7	1.7	1.7	1.7
23 Native white 10 years of age and over.....	61,516	9,156	13,209	9,005	11,304	3,867	13,878	7,297	10,886	3,543	9,561	13,337
24 Per cent of illiterate.....	4.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
25 Population 10 to 20 years of age.....	22,600	3,610	5,262	3,537	4,544	1,442	5,319	2,690	3,939	1,203	3,388	4,962
26 Per cent of illiterate.....	1,038	194	415	296	297	84	426	170	293	64	440	492
27 Per cent of illiterate.....	4.6	5.4	7.9	11.0	6.3	5.8	8.0	6.3	7.4	5.0	13.0	9.9
28 Population 6 to 20 years of age.....	30,713	5,005	7,544	5,160	6,490	2,154	7,570	3,892	5,613	1,855	4,782	7,148
29 School enrollment (public).....	21,134	3,474	5,339	2,814	5,006	1,796	5,106	3,082	4,722	1,340	3,888	5,447
30 Number enrolled from each 100 of 6 to 20 years of age.....	68.5	69.4	70.7	64.4	77.1	83.3	67.4	79.3	84.1	72.2	81.3	76.2
31 White enrollment.....	18,887	3,139	4,913	2,778	4,438	1,565	4,786	3,055	4,660	1,340	3,846	5,157
32 Colored enrollment.....	2,247	335	426	1	568	201	320	26	62	1,340	3,846	5,157
33 Number of private-schools.....	3	.....	1	200	.....	.....	2	.....	1	.....	42	200
34 Private-school enrollment.....	433	.....	200	.....	.....	.....	160	.....	450	.....	.....	.....

PUBLIC SCHOOLS.																																			
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
Public and private school enrollment.																																			
Per cent enrolled in private schools.																																			
PUBLIC SCHOOLS.																																			
Average attendance.																																			
White.																																			
Colored.																																			
Number attending daily in each 100 enrolled.																																			
White.																																			
Colored.																																			
Attending daily in each 100 of 6 to 20 years of age.																																			
Length of session, in days.																																			
Number of days each child enrolled attended.																																			
Number of days each child 6 to 20 years of age attended.																																			
Number of teachers.																																			
Enrollment per teacher.																																			
Teachers' salaries.																																			
Average annual salary.																																			
Normal-trained teachers.																																			
Per cent of teachers with normal-school training.																																			
Third-grade certificates issued.																																			
Per cent of third-grade certificates.																																			
Total school expenditures.																																			
Amount received from the State.																																			
Per cent received from the State.																																			
Expenditure per child enrolled.																																			
Expenditure per child 6 to 20 years of age.																																			
Per cent of total expenditures used for teachers' salaries.																																			
Tuition per child enrolled.																																			
Tuition per child 6 to 20 years of age.																																			
Value of school buildings.																																			
Average value of school buildings.																																			
Number of school libraries.																																			
Number of volumes in libraries.																																			
Average number of volumes in libraries.																																			
Circulating libraries.																																			
Enrolled in high school.																																			
Enrolled in high school per 100 of population 6 to 20.																																			

1 In 1911.

County organized in 1912.

School statistics of Tennessee—Continued.

[The mountain counties are in *italic*.]

	Rhea County.	Roane County.	Scott County.	Squanto County.	Sevier County.	Sullivan County.	Union County.	Van Buren County.	Warren County.	Washington County.	White County.
Population:											
Total.....	15,410	22,880	12,947	4,202	22,296	28,130	7,201	2,784	16,534	28,968	15,420
White.....	14,072	20,490	12,850	4,063	21,917	26,584	7,070	2,736	14,585	26,701	14,515
Colored.....	1,316	2,366	97	139	387	1,535	131	48	1,949	2,267	1,899
Per cent colored.....	8.5	10.3	0.7	3.3	1.7	5.5	1.8	1.7	11.8	7.8	6.8
Foreign white.....	70	123	40	4	7	81	2	1	33	528	77
Per cent foreign white.....	0.5	0.5	0.3	0.1	0.3	0.3	0.3	0.3	0.2	1.8	0.5
Native white of native parentage.....	13,830	20,032	12,717	4,037	21,897	26,291	5,051	2,727	14,461	25,754	14,347
Per cent of native white of native parentage.....	89.7	87.6	98.2	96.1	98.2	93.5	97.9	98.0	87.5	89.0	93.0
Urban.....	6,721	6,721	12,947	4,202	22,296	20,972	7,201	2,784	16,534	8,502	15,420
Rural.....	15,410	16,139	12,947	4,202	22,296	7,148	7,201	2,784	16,534	20,466	15,420
Of largest city or village.....	1,991	3,660	23.5	1,166	38.0	48.1	35.8	9.5	39.1	83.0	42.5
Area, square miles.....	365	388	550	264	587	496	201	235	423	325	363
Average area (square miles) per white school.....	7.4	5.6	8.4	16.5	5.5	5.0	7.1	4.2	6.4	4.9	6.4
Number of white schools.....	49	69	65	16	106	87	28	20	66	66	56
Schools necessary to provide one for each 12 square miles.....	31	33	46	22	49	37	17	25	36	28	31
Population 6 to 20 years of age per school.....	101	106	74	87	78	107	85	75	69	121	83
Population 6 to 20 years of age for each 12 square miles.....	176	250	105	67	175	258	159	40	152	325	175
Number of one-teacher schools, white and colored.....	39	60	62	9	94	64	19	18	35	53	35
Per cent of one-teacher schools.....	72.2	76.9	80.0	52.9	86.2	71.9	56.6	85.7	44.3	70.6	53.8
Population 10 years of age and over.....	11,043	16,363	8,714	2,923	15,038	20,653	4,942	1,974	12,300	21,992	10,965
Illiterate.....	1,690	2,014	1,633	284	2,148	2,701	963	1,091	1,335	2,201	1,851
Per cent of illiterate.....	15.3	12.3	19.3	14.3	14.3	13.1	20.1	11.7	10.9	10.0	16.9
Native white 10 years of age and over.....	9,988	14,515	8,587	2,816	14,769	19,369	4,829	1,940	10,804	19,689	10,204
Illiterate.....	1,432	1,587	1,614	259	2,078	2,380	953	1,081	880	1,700	1,569
Per cent of illiterate.....	14.3	10.9	18.8	9.2	14.1	12.3	19.7	11.4	8.1	8.6	15.6
Population 10 to 20 years of age.....	3,884	5,757	3,329	104	5,828	6,729	1,732	721	3,906	6,483	3,808
Illiterate.....	329	300	269	63	296	511	162	140	236	355	340
Per cent of illiterate.....	8.5	5.2	8.1	6.0	5.1	7.6	9.2	3.9	6.0	5.5	11.8
Population 6 to 20 years of age.....	5,486	8,275	4,872	1,495	8,605	9,580	2,560	1,016	5,490	9,101	5,425
School enrollment (public).....	4,226	6,547	4,628	1,073	7,263	7,175	2,270	918	4,417	6,574	4,088
of age.....	77.0	79.1	94.0	71.8	84.4	60.2	89.0	90.3	80.4	72.2	75.3
White enrollment.....	3,887	5,857	4,628	1,068	7,167	6,987	2,261	900	3,065	6,155	3,839
Colored enrollment.....	359	670	.....	13	96	188	9	18	453	539	246
Number of private schools.....	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Private-school enrollment.....	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Public and private school enrollment.....	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Per cent enrolled in private schools.....	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PUBLIC SCHOOLS.

39	Average attendance.....	2,008	4,850	4,229	779	4,982	4,457	2,080	2,269	795	3,212	4,446	2,744
40	White.....	2,376	4,384	4,229	767	4,922	4,341	2,061	2,269	775	2,910	4,082	2,544
41	Colored.....	231	466	91.3	12	66	116	90.7	71.1	86.5	72.7	394	1,160
42	Number attending daily in each 100 enrolled.....	61.6	74.0	91.3	72.6	68.5	62.1	71.1	71.1	86.5	72.7	67.6	67.1
43	White.....	68	74	91	72	68	62	90	71	86	72	67	66
44	Colored.....	68	69	91.3	52.1	57.8	37.3	90.7	52.6	77.2	58.4	48.9	50.5
45	Attending daily in each 100 of 6 to 20 years of age.....	47.4	58.5	91.3	52.1	57.8	37.3	90.7	52.6	77.2	58.4	48.9	50.5
46	Length of session, in days.....	138	117	100	90	98	123	108	100	91	119	155	112
47	Number of days each child enrolled attended.....	86.0	86.5	91.3	66.3	67.1	81.9	97.9	71.1	77.8	86.5	104.7	76.1
48	Number of days each child 6 to 20 years of age attended.....	65.4	68.4	91.3	46.8	58.6	49.1	87.2	52.6	70.2	69.4	75.6	56.5
49	Number of teachers.....	87	133	93	27	120	118	87	63	24	108	169	110
50	Enrollment per teacher.....	23	43	115	29	80	43	61	48	38	10	38	37
51	Teachers' salaries.....	\$22,441	\$36,630	\$16,115	\$4,160	\$23,894	\$43,183	\$7,674	\$11,252	\$3,426	\$22,709	\$64,767	\$16,819
52	Average annual salary.....	\$26.41	\$29.4	\$17.8	\$15.4	\$35.5	\$35.5	\$20.7	\$17.2	\$11.2	\$21.0	\$35.3	\$12.2
53	Normal-trained teachers.....	3.7	10.7	10.7	10.1	10.1	10.1	10.1	3.0	3.0	1.4	3	1.2
54	Per cent of teachers with normal-school training.....	65	105	10.7	30	121	81	71	38	38	12.9	1.9	11.5
55	Per cent of third-grade certificates.....	78	98	98	93	100	81	70	70	100	66	61	72
56	Per cent of third-grade certificates.....	78	98	98	93	100	81	70	70	100	66	61	72
57	Amount received from the State.....	\$35,259	\$46,649	\$25,746	\$7,536	\$28,094	\$54,368	\$8,998	\$12,900	\$6,716	\$30,862	\$93,022	\$32,975
58	Amount received from the State.....	\$6,880	\$8,703	\$5,826	\$1,946	\$9,373	\$9,401	\$3,080	\$5,321	\$1,691	\$6,586	\$16,612	\$6,462
59	Per cent received from the State.....	19	18	22	21	33	17	34	41	25	20	17	19
60	Expenditure per child enrolled.....	\$3.34	\$7.09	\$5.56	\$7.02	\$3.86	\$9.42	\$3.96	\$4.06	\$7.31	\$6.08	\$14.15	\$8.06
61	Expenditure per child 6 to 20 years of age.....	\$6.42	\$5.60	\$5.27	\$5.04	\$3.25	\$5.67	\$3.52	\$3.03	\$6.60	\$5.61	\$10.21	\$6.06
62	Per cent of total expenditures used for teachers' salaries.....	64.2	78.5	62.7	55.2	83.2	79.3	85.2	87.1	50.9	73.5	69.6	51.0
63	Tuition per child enrolled.....	\$5.35	\$5.56	\$3.48	\$3.87	\$3.21	\$7.47	\$3.37	\$3.56	\$3.72	\$5.13	\$9.94	\$4.11
64	Tuition per child 6 to 20 years of age.....	\$4.12	\$4.39	\$3.30	\$2.78	\$2.70	\$4.51	\$2.99	\$2.63	\$3.35	\$4.12	\$7.10	\$3.09
65	Value of school buildings.....	\$63,000	\$59,000	\$27,000	\$15,000	\$52,000	\$52,000	\$20,000	\$22,300	\$9,200	\$43,000	\$192,800	\$38,000
66	Average value of school buildings.....	\$1,188	\$797	\$415	\$882	\$559	\$559	\$714	\$398	\$438	\$556	\$2,836	\$633
67	Number of school libraries.....	13	5	5	26	26	21	2	4	309	7	16	36
68	Number of volumes in libraries.....	600	1,360	400	675	616	675	616	75	309	700	2,140	3,200
69	Average number of volumes in libraries.....	46	276	80	32	32	32	308	75	75	100	133	88
70	Circulating libraries.....	6	185	28	28	28	28	10	65	65	65	436	150
71	Enrolled in high school.....	163	185	28	28	28	28	10	65	65	65	436	150
72	Enrolled in high school per 100 of population 6 to 20.....	2.99	2.23	0.57	0.57	0.57	0.57	0.39	1.18	4.79	2.76	2.76	2.76

School statistics of Virginia.

[Mountain counties are in *italics*.]

	Entire State.	Alleghany County.	Amherst County.	Augusta County.	Bath County.	Bedford County.	Blount County.	Bote-tourt County.	Buck-ses County.	Carroll County.
Population:										
1 Total.....	2,061,612	19,921	18,932	43,049	6,538	29,549	5,154	17,727	12,334	21,116
2 White.....	1,589,800	15,880	11,460	36,026	5,362	21,094	5,021	14,232	12,330	20,843
3 Colored.....	671,096	4,037	7,465	7,017	1,176	8,455	133	3,495	4	208
4 Per cent colored.....	32.6	20.3	39.4	16.3	18.0	28.6	2.6	19.7	10	1.3
5 Foreign white.....	26,628	296	85	204	115	86	5	53	0.1	8
6 Per cent foreign white.....	1.3	1.5	0.4	0.5	1.8	0.3	0.1	0.3	0.1	0.1
7 Native white of native parentage.....	1,325,238	15,171	11,238	35,256	5,156	20,525	5,001	14,068	12,312	20,806
8 Per cent native white of native parentage.....	64.3	76.2	59.4	81.9	78.9	70.5	97.0	79.4	99.8	98.5
9 Urban.....	476,529	9,962	10,604	10,604	6,538	27,041	5,154	17,727	12,334	21,116
10 Rural.....	1,585,083	9,939	18,932	32,445	12.0	2,508	14.3	792	264	755
11 Of largest city or village.....	127,628	4,234	40.3	1,632	32.3	34.2	360	548	514	458
12 Rural, per square mile.....	39.4	21.7	40.3	32.3	12.0	34.2	14.3	22.3	24.0	46.1
13 Area, square miles.....	40,232	458	470	1,006	545	791	360	548	514	458
14 Average area (square miles) to each white school.....	8,309	86	77	238	44	146	39	103	72	110
15 Number of white schoolrooms.....	3,356	38	40	93	46	66	30	46	43	39
16 Schools necessary to provide one for each 12 square miles.....										
17 Population 6 to 20 years of age per school.....										
18 Population 6 to 20 years of age per 12 square miles.....										
19 Number of one-teacher schools.....	207	170	170	144	46	162	62	137	114	204
20 Per cent of one-teacher schools.....	5.031	38	73	86	33	125	31	54	62	90
21 Population 10 years of age and over.....										
22 Illiterate.....	1,536,297	14,084	13,506	33,337	4,905	21,533	3,777	12,968	7,938	14,602
23 Per cent of illiterate.....	232,911	1,481	2,760	2,760	476	3,420	386	1,260	2,723	2,474
24 Native white 10 years of age and over.....	1,013,094	10,131	8,242	27,677	3,846	15,398	3,679	10,365	34.2	16.9
25 Illiterate.....	81,457	612	569	1,396	270	1,191	36	660	7,944	14,408
26 Per cent of illiterate.....	494,232	4,307	4,791	9,701	7.0	7.7	9.6	6.4	2,721	2,406
27 Population 10 to 20 years of age.....	494,232	4,307	4,791	9,701	1,524	7,515	1,363	4,533	3,312	5,712
28 Illiterate.....	40,831	400	460	1,211	121	460	88	283	734	539
29 Per cent of illiterate.....	8.3	9.3	9.6	12.4	7.9	10.2	6.4	6.2	22.2	9.9
30 Population 6 to 20 years of age.....	697,529	6,867	6,867	13,777	2,131	10,775	1,885	6,316	4,916	7,981
31 School enrollment (public).....	495,832	3,865	3,865	8,345	1,305	6,495	1,271	4,031	3,410	5,082
32 Number enrolled from every 100 of 6 to 20 years of age.....	292,895	3,774	2,717	7,114	61.2	64.9	67.5	63.1	84.0	83.1
33 White enrollment.....	117,018	602	1,163	1,231	1,163	5,089	1,236	3,228	3,440	5,013
34 Colored.....	117,018	602	1,163	1,231	1,163	1,880	18	802	1	29
35 Number of private schools.....										
36 Enrolled in private schools, elementary and high.....	16,417	143	202	1,254	7	329	2	1		
37 Public and private school enrollment.....	426,242	4,038	3,512	9,596	7,298	7,298	4.5			
38 Per cent enrolled in private schools.....	3.8	3.5	5.5	14.1						

PUBLIC SCHOOLS.

39	School attendance.....	264,835	1,916	5,677	838	4,151	2,544	1,888	2,892
40	White.....	183,888	1,278	4,817	60	3,089	2,080	1,888	2,892
41	Colored.....	70,947	640	860	90	1,082	514	1,888	2,892
42	Attending daily from every 100 enrolled.....	83.4	66.1	68.0	64.1	66.5	63.1	64.8	57.3
43	White.....	64.6	57.5	67.7	65.4	60.1	63.8	54.8	57.4
44	Colored.....	60.6	53.6	69.7	55.1	55.1	64.0	48.2	48.2
45	Attending daily from every 100 of population 6 to 20.....	37.8	27.9	42.0	38.2	36.0	40.2	38.3	36.1
46	Length of session, in days.....	134	111	130	104	117	124	108	96
47	Days each child enrolled attended.....	86.5	62.2	87.0	66.6	66.6	78.2	59.1	55.0
48	Days each child 6 to 20 years of age attended.....	72.6	30.9	53.7	40.7	45.6	49.8	41.3	34.6
49	Teachers.....	10,778	110	275	51	194	126	72	112
50	Enrollment per teacher.....	38	30	30	25	35	31	47	45
51	Salaries of teachers.....	\$33,364	\$19,889	\$70,717	\$10,180	\$40,711	\$32,825	\$16,164	\$19,405
52	Average annual salary.....	\$337	\$180	\$257	\$199	\$209	\$260	\$224	\$173
53	Certificates higher than first grade.....	7	6	30	4	20	24	6	8
54	Per cent of certificates higher than first grade.....	7.0	5.4	10.9	7.8	10.3	19.0	8.3	7.1
55	Third and fourth grade and emergency certificates.....	4	17	40	13	42	17	13	19
56	Per cent of teachers holding third and fourth grade and emergency certificates.....	4.0	15.4	14.5	25.4	21.6	13.4	12.0	16.9
57	Total school expenditures.....	\$5,851,040	\$37,701	\$113,158	\$17,362	\$61,104	\$44,326	\$73,351	\$23,700
58	Amount received from State.....	\$1,729,679	\$16,063	\$31,768	\$5,156	\$30,979	\$16,212	\$11,879	\$18,994
59	Per cent received from State.....	29.5	44.7	28.0	29.8	50.6	34.3	16.1	80.1
60	Expenditure per child enrolled.....	\$14.27	\$10.90	\$13.54	\$13.29	\$8.76	\$10.99	\$7.90	\$4.70
61	Expenditure per child 6 to 20 years of age.....	\$8.58	\$5.43	\$8.39	\$5.13	\$5.68	\$5.33	\$21.33	\$2.96
62	Per cent of expenditures used for teachers' salaries.....	38.0	53.4	62.4	68.6	64.6	74.1	\$14.91	\$2.96
63	Tuition per child enrolled.....	\$3.41	\$3.82	\$3.44	\$7.78	\$3.53	\$3.74	\$2.0	\$2.0
64	Tuition per child 6 to 20 years of age.....	\$3.13	\$2.89	\$3.23	\$4.76	\$3.78	\$3.12	\$4.68	\$3.85
65	Value of school buildings.....	\$9,281,975	\$32,000	\$192,800	\$28,500	\$108,900	\$17,700	\$38,150	\$49,100
66	Average value of school buildings.....	\$304	\$361	\$1,329	\$708	\$711	\$56,560	\$569	\$491
67	Number of school libraries.....	1,3,054	65	73	8	60	46	4	10
68	Number of volumes in libraries.....	1,221,120	1,800	5,622	300	5,426	2,103	555	2,100
69	Average number of volumes.....	72	85	77	37	90	45	138	210
70	Circulating libraries.....	269	1	3	1	3	1	1	0
71	Enrolled in high-school grades.....	19,827	142	789	25	313	192	10	20
72	Enrolled in high school from every 100 of population 6 to 20.....	2.84	2.07	5.83	1.31	2.91	3.03	0.20	0

1 Figures for 1911.

School statistics of Virginia—Continued.

[Mountain counties are in *italics*.]

	Clarke County.	Craig County.	Dickenson County.	Floyd County.	Franklin County.	Frederick County.	Giles County.	Groveson County.	Greene County.	Highland County.	Lee County.
Population:											
1 Total.....	7,468	4,711	9,199	14,092	26,480	18,651	11,623	19,856	6,937	5,317	23,840
2 White.....	5,568	4,504	9,102	13,255	21,045	16,919	10,868	18,917	5,598	5,057	22,824
3 Colored.....	1,900	207	7	837	5,435	1,732	755	939	1,339	260	952
4 Per cent colored.....	25.4	4.4	0.1	5.9	20.6	9.3	6.5	4.7	19.3	4.9	4.0
5 Foreign white.....	26	77	5	12	12	126	16	6	4	72	185
6 Per cent foreign white.....	0.3	1.6	0.1	5	0.7	0.7	0.1	6	0.1	1.4	0.8
7 Native white of native parentage.....	5,472	4,394	9,185	13,247	21,007	16,499	10,788	18,893	5,588	4,949	22,680
8 Per cent native white of native parentage.....	73.3	93.3	99.4	94.0	79.3	88.5	92.8	95.1	80.6	93.1	94.7
9 Urban.....						5,864					
10 Rural.....	7,468	4,711	9,199	14,092	26,480	12,787	11,623	19,856	6,937	5,317	23,840
11 Of largest city or village.....	876		342	369	967	483	975	1,775	240	240	792
12 Rural, per square mile.....	43.7	14.1	28.3	37.5	38.0	29.4	31.5	46.7	44.8	12.6	53.5
13 Area, square miles.....	171	333	325	376	697	435	369	425	155	422	446
14 Average area (square miles) to every white school.....			70	106	154	94	81	134	31	42	99
15 Number of white schoolrooms.....	32	40	28	32	59	37	31	36	13	36	38
16 Schools necessary to provide one for each 12 square miles.....	15	28	28	162	170	150	136	207	192	47	229
17 Population 6 to 20 years of age per school.....		59	130	99	145	72	47	68	26	28	65
18 Population 6 to 20 years of age per 12 square miles.....	166	23	54								
19 Number of one-teacher schools.....											
20 Per cent of one-teacher schools.....											
21 Population 10 years of age and over.....	5,625	3,537	5,947	10,056	18,621	14,694	8,251	14,017	4,842	3,984	16,365
22 Illiterate.....	766	66	916	1,200	3,941	1,017	1,142	2,117	1,491	329	3,333
23 Per cent of illiterate.....	13.6	1.9	15.4	11.9	21.2	7.0	13.8	15.1	30.8	8.3	20.4
24 Native white 10 years of age and over.....	4,186	3,293	5,938	9,458	14,780	13,128	7,701	13,960	3,917	3,723	15,467
25 Illiterate.....	334	57	912	1,016	2,300	619	938	1,866	1,126	253	3,080
26 Per cent of illiterate.....	8.0	1.7	15.4	10.7	15.6	4.7	12.1	14.0	28.7	6.8	19.9
27 Population 10 to 20 years of age.....	1,763	1,213	2,500	3,801	7,006	3,995	2,925	5,245	1,705	1,235	5,946
28 Illiterate.....	163	15	200	216	969	406	517	866	60	60	1,112
29 Per cent of illiterate.....	9.2	1.2	8.0	5.7	13.8	3.8	9.2	9.9	23.8	4.9	18.2
30 Population 6 to 20 years of age.....	2,491	1,669	3,671	5,339	10,046	5,570	4,238	7,461	2,506	1,727	8,730
31 School enrollment (public).....	1,445	1,162	3,151	4,094	6,081	3,647	3,039	5,612	1,239	1,144	5,739
32 Number enrolled from every 100 of 6 to 20 years of age.....	58.1	69.6	85.8	76.7	60.5	65.4	71.7	83.2	46.4	66.2	66.7
33 White enrollment.....	1,084	1,141	3,151	3,806	5,157	3,327	2,866	5,344	1,043	1,061	5,619
34 Colored.....	364	21	136	186	924	339	141	268	196	63	120
35 Number of private schools.....			90		139	55		26			42
36 Ungraded private schools, elementary and high.....											
37 Public and private school enrollment.....				4,094	6,220	3,702		5,637			6,163
38 Per cent enrolled in private schools.....				2.1	2.2	1.4		0.4			6.8

PUBLIC SCHOOLS.

39	School attendance.....	840	788	1,757	2,469	3,772	2,354	2,010	3,432	769	762	3,342
40	White.....	201	771	1,757	2,469	3,772	2,354	2,010	3,432	769	762	3,342
41	Colored.....	58.0	77.1	58.7	81.6	3,263	2,192	1,900	3,206	608	177	3,294
42	Attending daily from every 100 enrolled.....	58.0	67.5	55.7	61.6	609	64.5	68.1	61.3	111	111	58.2
43	White.....	58.9	67.5	55.7	61.6	609	64.5	68.1	61.3	111	111	58.2
44	Colored.....	33.6	45.9	41.7	46.0	37.6	41.1	41.3	46.3	55.7	55.2	77.3
45	Attending daily from every 100 of population 6 to 20.....	14.1	13.4	11.5	10.2	10.9	11.2	11.3	10.3	11.1	11.2	13.9
46	Length of session, in days.....	81.1	90.4	82.3	82.8	82.2	81.2	74.9	82.7	88.2	80.1	80.8
47	Days each child enrolled attended.....	47.2	62.8	53.4	46.9	51.6	53.0	53.4	47.1	53.6	52.9	53.2
48	Teachers.....	12	28	15	30	178	35	35	111	37	44	102
49	Enrollment per teacher.....	34	36	45	34	34	35	35	39	33	26	36
50	Salaries of teachers.....	\$10,451	\$9,113	\$16,853	\$14,214	\$28,664	\$26,687	\$19,395	\$27,080	\$4,784	\$11,549	\$30,835
51	Average annual salary.....	\$253	\$222	\$240	\$173	\$149	\$258	\$205	\$191	\$183	\$162	\$201
52	Certificates higher than first grade.....	8	4	10	2	5	4.9	11	9	7	6	10
53	Per cent of certificates higher than first grade.....	19.0	9.7	14.2	1.3	0	4.9	12.7	6.3	2.7	13.6	9.8
54	Third and fourth grade and emergency certificates.....	5	10	13	44	59	32	25	43	8	4	14
55	Per cent of teachers holding third and fourth grade and emergency certificates.....	11.9	24.3	25.7	39.6	33.1	31.0	28.7	29.7	21.6	9.0	13.7
56	Total school expenditures.....	\$16,222	\$13,241	\$31,463	\$17,555	\$37,875	\$42,649	\$29,108	\$32,094	\$17,533	\$17,533	\$33,044
57	Amount received from State.....	\$8,243	\$4,468	\$9,552	\$17,841	\$22,137	\$16,229	\$11,158	\$22,840	\$6,284	\$4,969	\$27,212
58	Per cent received from State.....	38.4	33.7	30.3	73.1	55.5	38.0	38.2	71.1	35.8	28.5	81.9
59	Expenditure per child enrolled.....	\$11.20	\$11.39	\$9.98	\$4.33	\$5.22	\$11.42	\$9.60	\$5.71	\$7.40	\$13.32	\$9.25
60	Expenditure per child 6 to 20 years of age.....	\$6.50	\$7.92	\$3.57	\$3.27	\$3.76	\$7.46	\$6.88	\$4.20	\$3.65	\$10.15	\$6.07
61	Per cent of expenditures used for teachers' salaries.....	71.8	67.9	63.5	80.9	70.4	62.5	64.4	64.3	74.0	65.8	58.1
62	Tuition per child enrolled.....	\$3.04	\$7.73	\$5.34	\$3.54	\$4.37	\$7.13	\$6.37	\$4.81	\$5.47	\$10.07	\$5.37
63	Tuition per child 6 to 20 years of age.....	\$4.66	\$5.37	\$4.58	\$2.64	\$2.64	\$4.66	\$4.56	\$3.61	\$2.70	\$6.67	\$3.52
64	Value of school buildings.....	\$11,296	\$17,500	\$47,242	\$21,600	\$45,500	\$70,925	\$44,940	\$79,350	\$10,340	\$19,000	\$38,800
65	Average value of school building.....	\$1,296	\$603	\$787	\$218	\$232	\$884	\$680	\$301	\$338	\$575	\$1,296
66	Number of school libraries.....	18	5	4	1	8	11	19	15	8	9	4
67	Number of volumes in libraries.....	1,040	500	354	100	1,600	965	1,950	2,950	287	281	300
68	Average number of volumes.....	57	100	88	100	200	87	102	196	35	31	75
69	Circulating libraries.....	99	120	40	0	2	169	3	5	1	2	1
70	Enrolled in high school grades.....	3.97	7.18	1.08	0	238	106	106	350	41	82	209
71	Enrolled in high school from every 100 of population 6 to 20.....					2.36	3.03	4.02	4.66	1.63	4.74	2.39

School statistics of Virginia—Continued.

[The mountain counties are in *italics*.]

	Loudoun County.	Madison County.	Montgomery County.	Nelson County.	Page County.	Patrick County.	Pulaski County.	Rappahannock County.	Roanoke County.	Rock-bridge County.
Population:										
Total.....	21,167	10,055	21,470	16,321	14,147	17,195	17,246	8,044	54,407	24,416
White.....	15,946	6,791	18,461	11,558	12,961	15,577	14,316	5,896	43,042	20,471
Colored.....	5,221	3,264	2,988	5,293	1,166	1,618	2,930	2,148	11,449	3,944
Per cent colored.....	24.7	32.5	13.9	31.3	8.2	9.4	17.0	26.7	21.0	16.2
Foreign white.....	103	1	60	48	23	1	26	2	842	59
Per cent foreign white.....	0.5	0.6	0.3	0.3	0.2	0.3	0.3	0.2	1.5	0.2
Native white of native parentage.....	15,635	6,788	18,272	11,452	12,906	15,571	14,125	5,882	40,952	20,279
Per cent native white of native parentage.....	73.9	67.5	85.1	68.1	91.2	90.6	81.9	73.1	75.1	83.1
Urban.....	21,167	10,055	4,202	16,321	14,147	17,195	12,439	8,044	38,723	6,176
Rural.....	1,507	17,268	1,568	1,431	1,431	388	4,807	235	15,774	18,240
Of largest city or village.....	40.8	31.0	48.1	35.6	43.9	35.5	37.4	29.4	3,849	2,931
Rural per square mile.....	519	324	401	473	322	495	333	274	29.8	29.6
Area, square miles.....	98	53	107	100	81	105	79	40	222	149
Average area (square miles) to each white school.....	44	27	34	40	27	41	23	23	52	52
Number of white schoolrooms.....	149	135	218	153	178	156	224	125	334	159
Schools necessary to provide 1 for each 12 square miles.....	53	50	47	53	57	60	24	31	49	80
Population 6 to 20 years of age per school.....	16,406	7,274	15,796	11,808	10,366	11,617	12,508	5,927	42,155	17,999
Population 6 to 20 years of age per 12 square miles.....	1,900	1,481	1,864	2,555	1,121	2,102	1,933	1,332	3,306	2,227
Number of 1-teacher schools.....	10.3	20.4	11.8	21.5	10.8	18.1	15.5	22.5	7.8	12.4
Per cent of illiterate.....	12,432	4,980	13,439	8,202	9,461	10,507	10,211	4,372	32,218	14,919
Native white 10 years of age and over.....	438	13.3	1,205	1,050	847	1,801	1,256	858	1,097	1,375
Per cent of illiterate.....	3.5	13.3	9.0	12.8	8.9	17.1	12.3	19.6	9.4	9.4
Population 10 to 20 years of age.....	4,742	2,533	5,240	4,239	3,354	4,347	4,775	2,013	12,692	5,847
Native white 10 years of age and over.....	291	311	360	673	227	432	492	320	488	448
Per cent of illiterate.....	6.1	12.3	6.9	15.9	6.8	9.9	11.0	15.9	3.8	7.7
Population 6 to 20 years of age.....	6,862	3,671	7,443	6,133	4,823	6,413	6,299	2,876	17,368	8,275
School enrollment (public).....	4,088	2,153	4,847	2,930	3,246	4,652	3,711	1,875	11,033	5,268
Number enrolled from every 100 of population 6 to 20.....	62.0	83.6	66.1	46.1	67.3	72.4	58.9	50.9	63.4	63.6
White enrollment.....	3,077	1,411	4,132	1,744	3,064	4,491	3,116	1,073	9,021	4,478
Colored enrollment.....	1,009	1,742	665	1,086	1,184	1,611	895	362	2,012	760
Per cent of illiterate.....	2	1	2	2	1	45	1	3	3	2
Enrolled in private schools, elementary and high.....	35	122	14	35	.....	45	.....	.....	.....	.....
Public and private school enrollment.....	4,121	2,773	4,861	2,866	.....	4,607	.....	.....	.....	.....
Per cent enrolled in private schools.....	0.8	5.3	0.3	1.2	.....	0.9	.....	.....	.....	.....

PUBLIC SCHOOLS.

Public school attendance.....	2,603	1,357	3,173	2,095	2,290	1,984	2,300	847	7,821	3,599
White.....	2,013	1,075	2,729	1,441	2,123	1,535	1,941	871	6,586	3,044
Colored.....	590	282	444	654	167	449	359	266	1,235	555
Attending daily from every 100 enrolled.....	63.7	66.0	66.4	73.6	70.1	42.2	61.9	57.8	73.0	68.3
White.....	68.4	68.0	66.2	82.6	76.0	40.8	62.2	63.2	72.0	67.9
Colored.....	59.4	62.2	66.6	59.3	72.0	50.1	60.3	67.5	61.4	70.2
Attending daily from every 100 of population 6 to 20.....	39.4	36.3	42.5	33.9	47.1	31.5	34.4	29.4	44.8	43.4
White.....	163	107	129	116	119	109	132	126	153	138
Colored.....	94.8	66.3	84.3	86.3	83.4	45.9	82.1	72.2	108.3	90.3
Days each child enrolled attended.....	59.3	58.3	54.3	59.3	55.0	53.2	62.4	56.7	68.5	67.7
Teachers.....	124	73	126	127	87	110	91	63	262	169
Enrollment per teacher.....	22	29	38	22	37	43	40	52	43	51
Salaries of teachers.....	\$39,913	\$12,139	\$31,522	\$24,023	\$18,022	\$17,001	\$28,710	\$11,985	\$117,151	\$44,599
Average annual salary.....	\$321	\$166	\$252	\$199	\$207	\$154	\$315	\$129	\$447	\$263
Certificates higher than first grade.....	26.4	8.2	11.1	5.1	6.8	3.4	15.6	15.8	27.0	34
Per cent of third grade and emergency certificates.....	10	25	10	42	14	11	10	11	19	20
Third and fourth grade and emergency certificates.....	34.2	34.2	14.0	33.0	16.0	37.2	12.0	21.1	1.9	11.2
Per cent of third grade and emergency certificates.....	\$69,875	\$17,701	\$33,083	\$24,802	\$38,402	\$38,704	\$41,431	\$20,492	\$289,529	\$82,482
Total school expenditures.....	\$10,594	\$3,431	\$11,118	\$15,909	\$12,582	\$16,451	\$14,604	\$7,777	\$36,272	\$22,874
Amount received from State.....	32.9	33.8	33.8	45.4	41.2	35.0	35.0	37.7	15.1	35.6
Per cent received from State.....	\$16,97	\$3,22	\$11,03	\$12,32	\$8,12	\$6,17	\$11,16	\$13,98	\$21,71	\$11,85
Expenditure per child enrolled.....	\$10.52	\$4.81	\$7.16	\$5.67	\$5.46	\$4.46	\$9.57	\$7.11	\$13.75	\$7.53
Per cent of expenditures used for teachers' salaries.....	57.5	68.5	67.6	63.8	68.2	60.2	64.4	53.4	48.9	71.3
Tuition per child enrolled.....	\$9.75	\$5.63	\$7.45	\$8.47	\$5.53	\$3.45	\$7.17	\$8.15	\$10.61	\$8.44
Tuition per child 6 to 20 years of age.....	\$6.04	\$3.29	\$4.85	\$3.90	\$3.72	\$2.64	\$4.23	\$4.15	\$6.71	\$5.36
Value of school buildings.....	\$102,825	\$12,200	\$91,910	\$14,000	\$33,000	\$3,066	\$92,150	\$29,150	\$240,500	\$72,620
Average value of school building.....	\$1,301	\$108	\$1,267	\$133	\$779	\$37	\$1,043	\$792	\$5,266	\$685
Number of school libraries.....	59	11	60	15	30	6	44	12	109	114
Number of volumes in libraries.....	4,431	1,374	2,249	1,553	1,588	230	2,154	230	4,501	.....
Average number of volumes.....	75	124	37	80	52	6	48	19	41	.....
Circulating libraries.....	6	1	6	6	1	.....	2	.....	.....	.....
Enrolled in high-school grades.....	352	90	157	130	129	69	270	106	569	371
Enrolled in high school from every 100 of population 6 to 20.....	5.04	2.17	2.10	2.11	2.67	1.07	4.28	3.68	3.44	4.48

School statistics of Virginia—Continued.

[The mountain counties are in *italic*.]

	Rocking- ham County.	Russell County.	Scott County.	Shenandoah County.	Smyth County.	Tazewell County.	Warren County.	Washing- ton County.	Wise (city).	Wythe County.
Population:										
Total.....	34,903	23,474	23,814	20,942	20,326	24,946	8,539	39,077	34,162	20,372
White.....	32,567	22,448	2,311	20,448	19,346	22,126	7,457	35,612	31,301	18,183
Colored.....	2,335	1,025	2,503	403	1,980	2,820	1,082	3,465	2,861	2,188
Per cent colored.....	6.7	4.4	2.1	2.4	4.8	11.3	13.2	8.8	8.4	10.7
Foreign white.....	105	568	0	29	48	649	51	100	1,447	48
Per cent foreign white.....	0.3	0.2	0	0.2	0.2	2.6	0.6	0.3	4.2	0.2
Native white of native parentage.....	32,169	21,749	23,283	20,288	19,179	21,122	7,372	35,294	29,210	18,067
Per cent native white of native parentage.....	92.2	92.7	97.8	96.9	94.4	84.7	85.4	90.3	85.5	88.6
Urban.....	4,879	23,474	23,814	20,942	2,727	24,946	8,539	6,247	2,590	3,054
Of largest city or village.....	4,879	899	599	1,314	17,599	2,422	1,133	32,530	31,572	17,318
Rural per square mile.....	34.3	47.3	43.9	41.1	2,527	47.0	39.8	1,757	75.2	36.2
Area, square miles.....	876	496	543	510	435	531	216	604	420	479
Average area (square miles) to each white school.....	231	115	118	133	108	124	53	195	149	107
Number of white schoolrooms.....	73	42	46	43	37	45	18	51	35	40
Schools necessary to provide 1 for each 12 square miles.....	157	200	191	155	190	195	160	286	330	180
Population 6 to 20 years of age per school.....	91	59	67	59	44	61	35	77	49	50
Per cent of 1-teacher schools.....	26,205	16,369	16,623	15,988	14,455	17,711	6,484	28,244	23,548	14,816
Illiterate.....	3,562	3,234	3,224	959	2,199	2,560	666	4,064	4,119	1,757
Per cent of illiterate.....	19.3	13.8	13.5	6.0	15.2	14.5	10.3	14.4	17.5	11.9
Native white 10 years of age and over.....	24,344	15,031	16,261	15,562	13,662	14,955	5,622	25,522	19,938	13,096
Per cent of illiterate.....	2,021	2,792	3,089	846	2,025	1,901	595	3,447	3,121	1,305
Per cent of illiterate.....	8.3	18.6	19.0	5.4	14.8	12.7	7.0	13.5	15.7	10.0
Population 10 to 20 years of age.....	8,123	5,842	6,120	4,705	4,850	6,114	2,068	9,560	8,003	5,957
Per cent of illiterate.....	429	770	690	150	513	624	116	875	1,438	322
Per cent of illiterate.....	5.3	13.2	11.3	3.2	10.6	10.2	5.6	9.2	18.2	5.4
Population 6 to 20 years of age.....	11,502	8,402	8,793	6,772	7,062	8,325	2,857	13,229	11,558	7,922
School enrollment (public).....	8,203	5,827	6,155	4,753	5,882	6,862	2,004	9,679	7,775	4,495
Number enrolled from every 100 of population 6 to 20.....	71.3	69.2	70.3	70.3	84.2	81.7	67.3	84.2	67.3	56.1
White enrollment.....	7,712	5,331	5,632	4,383	4,924	5,600	1,721	8,128	6,575	3,990
Colored enrollment.....	491	140	561	390	238	582	283	564	400	469
Number of private schools.....	3	1	1	1	1	3	3	3	3	3
Enrolled in private schools, elementary and high.....	275	62	25	4	25	30	135	292	110	110
Public and private school enrollment.....	8,478	5,889	4,947	4,795	4,947	6,012	2,139	8,947	4,589	4,589
Per cent enrolled in private schools.....	3.2	1.1	0.5	1.3	0.5	0.4	0.3	3.2	2.4	2.4

PUBLIC SCHOOLS.

30	Public school attendance.....	5,628	3,498	5,241	3,141	3,011	3,726	1,319	5,466	4,383	2,524
40	Whites.....	5,294	3,364	5,203	3,077	2,873	3,348	1,124	5,063	4,123	2,538
41	Colored.....	344	134	38	64	138	378	195	403	261	2,266
42	Attending daily from every 100 enrolled.....	68.6	59.5	73.2	65.3	61.1	63.2	65.8	62.8	60.2	63.3
43	Whites.....	67.2	58.2	73.3	64.3	61.2	62.0	65.9	62.4	59.9	63.6
44	Colored.....	70.0	71.1	64.4	64.6	60.5	64.9	68.9	68.0	65.2	60.9
45	Attending daily from every 100 of population 6 to 20.....	48.9	41.0	59.5	47.0	42.6	42.1	45.5	40.1	37.8	39.1
46	Length of session, in days.....	128	111	120	137	133	140	127	137	140	130
47	Days each child enrolled attended.....	37.8	65.0	87.8	84.2	81.2	87.0	83.5	86.0	84.2	82.2
48	Days each child 6 to 20 years of age attended.....	63.5	45.0	71.4	59.6	56.6	58.9	57.7	54.9	52.9	50.8
49	Teachers.....	244	119	119	137	114	138	60	215	159	113
50	Enrollment per teacher.....	33	48	60	34	43	43	33	40	45	37
51	Salaries of teachers.....	\$45,801	\$28,867	\$31,811	\$24,228	\$28,803	\$30,940	\$13,954	\$61,234	\$59,221	\$32,905
52	Average annual salary.....	\$269	\$243	\$267	\$249	\$253	\$268	\$232	\$254	\$273	\$278
53	Certificates higher than first grade.....	34	21	47	21	16	26	3	57	47	19
54	Third and fourth grade and emergency certificates.....	13.9	17.6	39.4	15.3	14.0	19.1	5.0	26.5	29.6	10.1
55	Per cent of certificates higher than first grade.....	31	23	13	19	25	5	0	33	26	18
56	Per cent of third and fourth grade and emergency certificates.....	12.7	23.5	10.9	13.8	21.9	3.6	0	15.3	16.3	15.2
57	Total school expenditures.....	\$124,787	\$45,632	\$39,031	\$63,132	\$37,858	\$56,502	\$19,957	\$79,883	\$115,638	\$77,813
58	Amount received from State.....	\$27,768	\$27,848	\$24,300	\$18,100	\$17,457	\$21,047	\$9,713	\$32,611	\$25,190	\$17,281
59	Per cent received from State.....	22.2	62.3	62.2	28.6	46.1	35.1	48.6	40.8	21.8	22.2
60	Expenditure per child enrolled.....	\$15.09	\$7.48	\$5.45	\$13.33	\$7.68	\$9.44	\$9.95	\$9.18	\$15.89	\$17.45
61	Expenditure per child 6 to 20 years of age.....	\$10.76	\$5.17	\$4.43	\$9.45	\$5.37	\$9.39	\$9.89	\$5.37	\$10.00	\$10.80
62	Per cent of expenditures used for teachers' salaries.....	52.7	66.1	81.2	54.2	76.7	70.6	69.9	76.6	51.2	42.2
63	Tuition per child enrolled.....	\$2.94	\$4.94	\$4.42	\$7.21	\$5.89	\$6.66	\$6.95	\$7.03	\$8.12	\$7.36
64	Tuition per child 6 to 20 years of age.....	\$5.66	\$3.41	\$3.59	\$5.12	\$4.11	\$4.51	\$4.81	\$4.49	\$5.12	\$4.55
65	Average value of school buildings.....	\$245,889	\$90,300	\$121,659	\$78,420	\$84,350	\$104,890	\$58,200	\$189,450	\$189,450	\$111,280
66	Value of school buildings.....	\$1,794	\$1,148	\$1,294	\$825	\$1,278	\$1,293	\$1,353	\$1,363	\$2,460	\$1,545
67	Number of school libraries.....	63	19	28	25	67	63	19	77	58	58
68	Number of volumes in libraries.....	6,950	1,655	1,634	2,254	4,700	2,466	1,900	3,945	2,800	3,119
69	Average number of volumes.....	133	87	58	89	70	39	100	51	48	53
70	Circulating libraries.....	6	2	2	6	9	3	0	4	2	2
71	Enrolled in high-school grades.....	607	129	67	267	298	0	0	510	262	273
72	Enrolled in high school from every 100 of population 6 to 20.....	5.37	1.53	0.76	3.85	4.06	0	0	3.75	2.36	3.79

1 00 buildings.

School statistics of West Virginia.

[The mountain counties are in *italics*.]

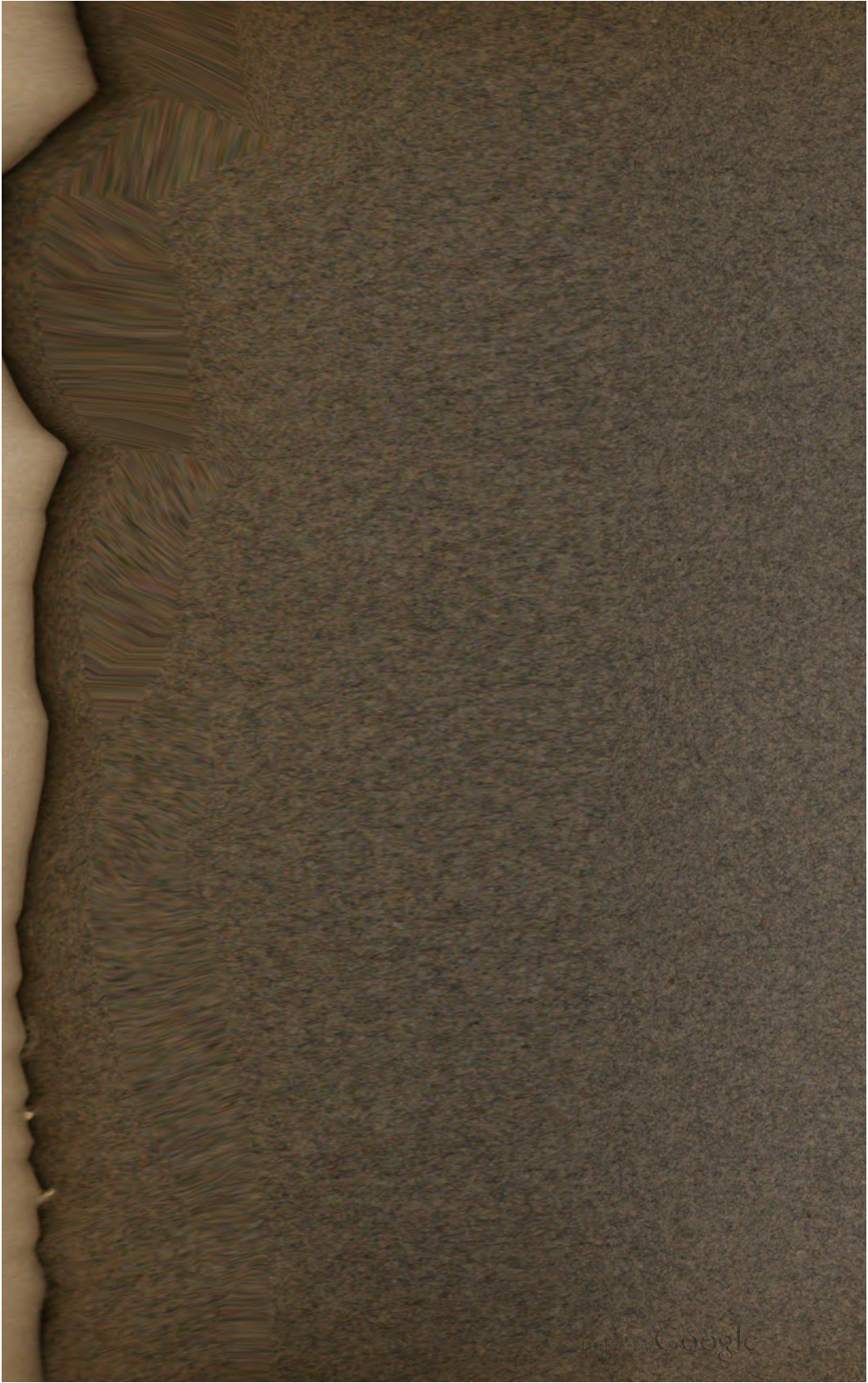
	Entire State.	Berkeley County.	Boone County.	Grant County.	Greenbrier County.	Hampshire County.	Hardy County.	Jefferson County.	Lincoln County.	Logan County.	McDowell County.	Mercer County.	Mineral County.
Population:													
1 Total.....	1,221,119	21,999	10,331	7,838	24,833	11,664	9,163	20,966	20,491	14,476	47,866	38,371	16,674
2 White.....	1,156,817	20,198	10,167	7,585	23,054	11,391	8,775	20,880	20,461	13,939	35,186	32,406	16,073
3 Colored.....	64,173	1,801	164	253	1,779	303	387	26	30	532	14,667	6,960	601
4 Per cent colored.....	5.3	8.2	1.6	3.2	7.2	2.6	4.2	0.1	0.1	3.7	30.6	18.5	3.6
5 Foreign white.....	57,072	344	9	360	455	36	49	109	29	927	6,260	1,148	825
6 Per cent foreign white.....	4.7	1.6	0.1	4.6	1.8	0.3	0.5	0.7	0.1	6.4	13.1	3.0	4.9
7 Native white of native parentage.....	1,042,107	19,292	10,121	6,987	22,169	11,261	8,637	20,643	20,363	12,792	25,196	30,515	14,041
8 Per cent of native white of native parentage.....	85.3	87.6	98.0	89.1	89.3	96.2	94.3	98.5	99.3	88.4	52.6	79.5	84.2
9 Urban.....	228,242	10,685	10,331	7,838	24,833	11,664	9,163	20,966	20,491	14,476	47,866	38,371	16,674
10 Rural.....	992,877	11,301	10,331	7,838	24,833	11,664	9,163	20,966	20,491	14,476	47,866	38,371	16,674
11 Of largest city or village.....	41,641	1,801	164	253	1,779	303	387	26	30	532	14,667	6,960	601
12 Rural, per square mile.....	24,022	325	20.4	17.1	24.9	18.0	16.0	62.7	49.0	1,940	2,047	1,157	37.2
13 Area, square miles.....	3.4	4.6	5.6	6.4	5.3	5.3	6.6	4.7	3.6	5.1	3.6	2.5	4.0
14 A white area (square miles) to each white child.....	6,919	70	90	72	187	121	87	44	115	88	148	106	87
15 Number of white schools.....	2,002	28	43	39	84	64	48	18	35	37	45	35	30
16 Schools necessary to provide 1 for each 12 square miles.....	55	79	41	44	42	32	35	84	65	56	68	66	57
17 Population 6 to 20 years of age, per school.....	198	237	90	65	101	73	65	270	216	133	308	356	176
18 Population 6 to 20 years of age for each 12 square miles.....	5,964	69	87	69	173	119	88	35	108	77	113	154	65
19 One-teacher schools.....	83	82	93	92	86	96	96	60	94	88	51	81	70
20 Per cent of one-teacher schools.....	993,822	17,159	7,068	5,765	18,247	8,020	6,636	12,311	13,748	10,119	35,064	27,832	12,470
21 Population 10 years of age and over.....	74,866	938	654	825	1,410	480	594	944	2,151	1,827	7,186	2,794	811
22 Illiterate.....	8.3	5.5	9.2	14.3	7.7	5.4	9.0	7.7	15.6	18.1	20.2	10.0	6.5
23 Per cent of illiterate.....	798,132	15,335	6,999	5,229	16,467	8,648	6,301	9,552	13,665	8,786	17,905	22,162	11,221
24 Native white 10 years of age and over.....	51,407	560	633	527	999	394	485	410	2,142	1,484	2,601	1,504	478
25 Illiterate.....	6.4	3.6	9.1	10.1	6.1	4.6	7.9	4.3	15.6	16.9	14.5	6.8	4.3
26 Per cent of illiterate.....	290,504	4,862	2,673	1,802	6,007	2,896	2,213	3,548	5,174	3,426	9,830	8,837	3,718
27 Population 10 to 20 years of age.....	11,367	168	107	120	211	73	124	126	425	358	1,267	358	125
28 Illiterate.....	4.1	3.5	4.0	6.7	3.5	2.5	5.6	3.6	8.2	10.4	12.9	4.1	3.4
29 Per cent of illiterate.....	395,818	6,665	3,873	2,565	8,409	3,905	3,162	4,873	6,942	4,942	13,466	12,483	5,281
30 Population 6 to 20 years of age.....	284,787	4,437	2,918	2,021	6,296	2,747	2,162	2,738	5,021	3,851	8,565	9,501	3,909
31 School enrollment.....	71.7	66.5	75.3	78.7	74.0	68.7	68.8	56.1	64.3	77.9	60.9	76.1	68.3
32 Enrolled from every 100 of population 6 to 20.....	272,097	4,088	2,859	1,961	5,808	2,692	2,100	2,012	5,021	3,804	8,446	8,446	3,468
33 White enrollment.....	11,660	349	59	60	488	55	62	726	5,021	47	2,214	1,055	141
34 Colored enrollment.....													
35 Private schools.....													

School statistics of West Virginia—Continued.
[The mountain counties are in *italic*.]

	Mingo County.	Monroe County.	Morgan County.	Nicholas County.	Pendle- ton County.	Pocahontas County.	Raleigh County.	Randolph County.	Summers County.	Tucker County.	Wayne County.	Webster County.	Wyoming County.
Population:													
1 Total.....	19,431	13,055	7,846	17,999	9,349	14,740	25,633	26,028	18,420	18,675	24,081	9,680	10,392
2 White.....	18,198	12,383	7,671	17,049	9,217	14,208	23,541	25,460	17,288	18,331	23,912	9,672	10,287
3 Colored.....	1,233	672	175	950	132	532	2,092	568	1,132	1,344	169	0.1	106
4 Foreign white.....	6.4	5.3	2.3	1.8	1.4	3.0	1.4	1.4	6.1	1.8	0.7	0.1	1.0
5 Foreign colored.....	1,197	10	172	705	308	808	1,525	2,081	140	3,010	51	97	17
6 Per cent foreign white.....	6.2	0.1	2.2	4.0	0.1	4.0	4.0	7.9	0.8	16.1	0.2	1.0	0.3
7 Native white of native parentage.....	16,627	12,312	7,318	16,564	9,163	13,110	21,597	22,013	16,902	13,904	23,696	9,410	10,247
8 Per cent of native white of native parentage.....	85.6	94.3	93.2	93.8	98.3	88.9	84.3	84.6	91.8	74.5	98.4	97.2	98.6
9 Urban.....	3,591	13,055	7,846	14,638	9,349	14,740	25,633	5,260	3,656	2,615	24,081	9,680	10,392
10 Rural.....	15,870	13,055	7,846	14,638	9,349	14,740	25,633	20,768	14,764	16,060	24,081	9,680	10,392
11 Of largest city or village.....	3,591	575	864	3,061	200	1,045	2,161	5,260	3,656	2,615	1,315	500	324
12 Rural, per square mile.....	38.1	28.6	33.7	21.5	13.4	16.3	42.9	20.0	40.0	39.7	18.6	18.6	20.7
13 Area, square miles.....	416	457	333	680	669	904	597	1,086	369	405	517	583	502
14 Average area (square miles) to each white school.....	4.1	3.6	5.4	4.7	7.2	8.3	3.2	4.8	2.7	5.0	3.2	5.8	5.3
15 Number of white schools.....	100	124	61	144	97	106	182	214	137	80	100	100	94
16 Schools necessary to provide 1 for each 12 square miles.....	35	39	28	57	69	76	50	87	31	34	44	49	42
17 Population 6 to 20 years of age, per school.....	62	33	41	42	32	40	44	28	34	50	44	37	29
18 Population 6 to 20 years of age for each 12 square miles.....	187	114	93	109	46	59	171	70	160	122	167	55	67
19 One-teacher schools.....	71	125	40	134	93	94	177	139	86	66	152	92	86
20 Per cent of one-teacher schools.....	67	94	63	93	93	84	90	64	94	80	91	92	89
21 Population 10 years of age and over.....	13,986	9,718	5,963	12,780	6,889	10,748	18,108	18,976	13,263	13,564	16,079	6,626	6,933
22 Illiterate.....	2,738	522	323	796	675	706	1,892	1,533	1,564	1,564	1,806	5,665	5,835
23 Per cent of illiterate.....	19.6	5.4	5.5	6.3	9.9	7.4	10.4	8.1	11.7	11.7	10.9	8.6	12.3
24 Native white 10 years of age and over.....	11,749	9,211	5,880	12,071	6,737	9,623	15,066	16,680	12,283	10,427	16,408	6,530	6,833
25 Illiterate.....	1,920	404	292	549	656	473	1,228	889	780	461	1,783	560	817
26 Per cent of illiterate.....	16.3	4.4	5.2	4.5	9.7	4.9	8.1	5.3	10.9	4.4	10.9	8.6	12.0
27 Population 10 to 20 years of age.....	4,688	3,175	1,889	4,322	2,283	3,134	5,965	5,733	4,080	3,240	6,240	2,426	2,731
28 Illiterate.....	531	68	59	139	111	137	367	285	161	283	322	78	174
29 Per cent of illiterate.....	11.3	2.0	3.1	3.2	4.9	4.4	6.2	5.0	3.6	8.8	5.2	3.2	6.4
30 Population 6 to 20 years of age.....	6,576	4,452	2,626	6,122	3,214	4,504	8,438	8,160	6,436	5,769	9,064	3,509	3,965
31 School enrollment.....	5,288	3,351	1,969	4,381	2,490	2,816	6,473	6,068	4,968	4,157	7,348	2,726	2,824
32 Enrolled from every 100 of population 6 to 20.....	80.4	76.9	74.9	71.5	76.6	62.5	75.3	74.0	77.1	72.1	81.1	77.6	70.3
33 White enrollment.....	5,141	3,204	1,837	4,381	2,396	2,750	5,971	5,997	4,992	4,066	7,317	2,726	2,804
34 Colored enrollment.....	147	177	32	35	35	66	502	96	266	63	31	276	20
35 Private schools.....													

No.	Private school enrollment in elementary and high schools. Public and private school enrollment. Per cent enrolled in private schools.	PUBLIC SCHOOLS.										
		Average school attendance.	White.	Colored.	Attending daily from every 100 enrolled.	White.	Colored.	Attending daily from every 100 of population 6 to 20.	Length of session, in days.	Days each child enrolled attended.	Days each child 6 to 20 years of age attended.	
36	Private school enrollment in elementary and high schools.	3,769	1,376	3,104	1,068	2,362	4,086	4,082	3,171	2,941	5,038	1,760
37	Public and private school enrollment.	3,070	1,345	3,104	1,641	2,340	3,772	4,669	2,983	2,801	5,021	1,787
38	Per cent enrolled in private schools.	86	31		27	80	314	68	188	40	17	13
39	Average school attendance.	2,336	99.8	70.8	68.6	84.9	63.1	70.0	63.8	68.3	68.5	61.9
40	White.	2,219	69.2	70.8	68.4	85.0	63.1	70.1	70.6	68.4	68.6	61.9
41	Colored.	117	96.8		77.1	76.7	62.5	66.6	63.6	64.5	64.8	66.0
42	Attending daily from every 100 enrolled.	60.0	52.2	50.6	50.3	53.0	47.5	56.2	49.1	49.2	55.5	43.5
43	White.	57.0	130	120	105	133	114	126	121	140	127	120
44	Colored.	137	90.7	84.9	72.7	112.9	71.9	96.7	77.1	96.6	86.3	74.2
45	Attending daily from every 100 of population 6 to 20.	97.2	67.8	60.7	53.2	70.4	54.1	70.8	59.4	68.8	69.9	52.2
46	Length of session, in days.	137	122	114	104	133	113	127	122	129	127	108
47	Days each child enrolled attended.	97.2	90.7	84.9	72.7	112.9	71.9	96.7	77.1	96.6	86.3	74.2
48	Days each child 6 to 20 years of age attended.	78.0	67.8	60.7	53.2	70.4	54.1	70.8	59.4	68.8	69.9	52.2
49	Teachers per teacher.	132	122	114	104	133	113	127	122	129	127	108
50	Teachers' salaries.	40	31	28	25	36	34	28	26	32	37	28
51	Average annual salary.	\$58,648	\$17,070	\$36,820	\$19,816	\$40,815	\$33,494	\$65,877	\$48,683	\$45,732	\$54,080	\$39,282
52	Teachers with normal or collegiate training.	\$444	\$274	\$269	\$190	\$306	\$251	\$303	\$283	\$354	\$278	\$276
53	Per cent of teachers with normal or collegiate training.	9	4	1	1	10	4	17	11	19	12	5
54	Third-grade certificates.	6.8	6.4	0.6	0.9	7.5	1.8	7.8	6.3	14.7	6.0	2.8
55	Per cent of third-grade certificates.	23	8	18	26	22	43	32	45	19	32	26
56	Total school expenditures.	\$4,846	\$28,870	\$57,777	\$27,154	\$103,843	\$80,501	\$101,755	\$70,376	\$66,835	\$79,984	\$38,832
57	Amount received from the State.	\$11,469	\$6,005	\$11,036	\$11,568	\$7,476	\$14,980	\$12,688	\$17,358	\$12,389	\$19,283	\$6,836
58	Per cent received from the State.	36.2	20.8	19.7	42.6	7.2	18.6	12.4	24.6	18.5	24.0	12.2
59	Expenditure per child enrolled.	\$17.93	\$14.66	\$13.19	\$11.18	\$26.18	\$12.43	\$16.66	\$14.19	\$16.07	\$10.87	\$13.86
60	Expenditure per child 6 to 20 years of age.	\$14.41	\$10.97	\$9.40	\$8.45	\$16.36	\$9.35	\$12.32	\$10.83	\$11.58	\$8.80	\$13.24
61	Per cent of total expenditures used for teacher's salaries.	61.8	58.9	63.7	73.9	39.3	66.4	64.7	60.1	68.4	68.5	54.9
62	Tuition per child enrolled.	\$11.07	\$8.47	\$8.30	\$8.14	\$10.28	\$8.24	\$10.77	\$9.80	\$10.88	\$7.43	\$8.33
63	Tuition per child 6 to 20 years of age.	\$8.80	\$6.46	\$5.96	\$6.40	\$8.42	\$6.20	\$7.96	\$7.55	\$7.91	\$6.02	\$6.45
64	Value of school buildings.	\$147,950	\$39,554	\$52,405	\$16,168	\$68,207	\$44,927	\$107,970	\$124,034	\$144,872	\$109,580	\$42,178
65	Average value of school building.	\$1,454	\$841	\$382	\$170	\$598	\$267	\$365	\$392	\$1,810	\$672	\$409
66	School libraries.	71	23	48	43	75	90	91	48	46	67	62
67	Number of volumes in libraries.	1,787	1,704	2,243	2,183	3,858	3,974	4,911	2,892	4,887	3,913	3,546
68	Average number of volumes in libraries.	55	74	46	50	51	40	63	61	106	58	27
69	Circulating libraries used.	3	4	1	0	2	0	6	1	4	1	2
70	Number of high schools.											
71	Enrolled in high school from each 100 of population 6 to 20.											

1 No data.





HISTORY OF PUBLIC SCHOOL EDUCATION IN ALABAMA

By STEPHEN B. WEEKS
OF THE BUREAU OF EDUCATION



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CONTENTS.

	Page.
Letter of transmittal.....	5
Chapter I.—Evolution of the State.....	7
Growth of population of Alabama, 1800–1910.....	9
First centers of American settlement.....	11
The lines of travel and the influence of roads on settlement.....	12
The distribution of incoming settlers.....	14
Chapter II.—Private schools before the Civil War.....	16
Schools supported from private sources.....	17
Schools supported in part out of public funds.....	23
Chapter III.—Administration of the sixteenth sections, 1819–1914.....	26
The laws of the thirties and the failure of the State bank.....	27
Judge Porter's bill in 1847–48.....	30
Proposed consolidation, 1852–53.....	33
Transfer of management to State superintendent, 1854.....	35
Auditor Reynolds's strictures, 1869.....	36
The law of 1881 lays foundation of a State fund.....	38
The act of 1899 and the case of <i>Alabama v. Schmidt</i>	39
Principal of the sixteenth section fund, 1851 and 1912.....	41
Chapter IV.—The rise of public schools in Mobile, 1826–1865.....	42
Public schools reorganized, 1852.....	44
Development, 1853–1865.....	45
Chapter V.—The experimental period in the organization of a State system, 1819–1854.....	48
The laws of 1839–40.....	49
Messages of Gov. Chapman and Gov. Collier in 1849.....	51
The house report of 1851–52.....	53
Gen. Perry's reminiscences.....	56
Chapter VI.—Organization of the public-school system, 1854–1856.....	58
Meek's report on education.....	59
The act of February 15, 1854.....	60
W. F. Perry chosen first State superintendent.....	63
The course of study and textbooks.....	65
The amended act of February 14, 1856.....	67
Chapter VII.—The work of the public schools, 1856–1865.....	69
The condition of schoolhouses.....	70
Indifference of the people and weakness of the law.....	71
Equalization and distribution of the sixteenth-section fund.....	74
The Alabama educational association and the educational press.....	76
Gabriel B. Duval becomes the second superintendent.....	77
The Civil War and after.....	80
Chapter VIII.—Reconstruction in the public schools, 1865–1876.....	84
I. The intermediate period, 1865–1868.....	84
II. The old régime and the new, 1868–1876.....	87
The State board of education.....	88
Reorganization and new legislation.....	89
The contest for supremacy in Mobile.....	90
Income, misappropriations and investigations.....	93
Conservatives in power, 1870; economy and reform.....	96

Chapter VIII.—Reconstruction in the public schools, 1865-1876—Continued.	Page.
III. School legislation in 1872, 1873, and 1875	101
Law of December 14, 1872, practically suspends schools for 1873.....	101
The appeal of the State board of education; arrears.....	103
Act of March 8, 1875, and constitution of 1875 reduce school fund....	110
The general situation in 1874-1876.....	111
Chapter IX.—Reorganization and advance, 1876-1898.....	114
I. The constitution of 1875.....	114
II. The school codes of 1877 and 1879.....	116
The administration of Leroy F. Box, 1876-1880.....	118
III. Progress in the eighties.....	119
The administration of Henry Clay Armstrong, 1880-1884.....	119
The administration of Solomon Palmer, 1884-1890.....	120
Rise of the special school district.....	122
Local taxation and the rise of city systems.....	123
IV. The Hundley amendment and after.....	127
The administration of John Gideon Harris, 1890-1894.....	127
The administration of John Orman Turner, 1894-1898.....	131
Chapter X.—The awakening, 1898-1914.....	135
I. The beginning of a new era.....	135
The administration of John W. Abercrombie, 1898-1902.....	136
II. The constitution of 1901.....	140
III. Contemporaneous conditions and progress.....	142
The administration of Isaac W. Hill, 1902-1906.....	142
The administration of Harry C. Gunnels, 1906-1910; of Henry J. Wil- lingham, 1910-1913; and of William F. Feagin, 1913 to date	146
Chapter XI.—Miscellaneous and supplementary agencies.....	155
I. Normal schools and other normal agencies.....	155
II. City schools.....	162
III. Negro schools.....	168
IV. Rural schoolhouses; rural supervision and school improvement asso- ciations.....	172
V. Rural school libraries and library organization.....	177
VI. District agricultural schools.....	178
VII. Industrial education.....	182
VIII. The county high schools.....	184
Chapter XII.—Looking from the past and into the future.....	187
Public school statistics, 1855-1914.....	197
I. School population, teachers, property, and school year.....	197
II. Enrollment and attendance.....	198
III. School revenues.....	199
IV. School expenditures.....	200
V. Tax valuation.....	202
Addendum.....	202
Bibliography.....	203
INDEX.....	207

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, February 19, 1915.

SIR: I submit herewith for publication as a bulletin of the Bureau of Education a brief account of the progress of education in the State of Alabama. This is the second in the series of brief histories of education in some of the States of the Union which this bureau is having prepared by and under the direction of Dr. Stephen B. Weeks, of this bureau, for the purpose of providing accurate information for the future historian, and the still more important purpose of helping those who are now working for the improvement of education in the States, as set forth in my letter transmitting the manuscript of Bulletin, 1912, No. 27.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

THE SECRETARY OF THE INTERIOR.

ACKNOWLEDGMENTS.

The compiler wishes to acknowledge with thanks many courtesies which he has received from citizens of Alabama during the preparation of this bulletin. Supt. John H. Phillips, of Birmingham; Mr. Henry J. Willingham, now president of the State Normal School at Florence; and Mr. William F. Feagin, the present State superintendent, courteously answered numerous questions; Hon. John W. Abercrombie and Mr. Isaac W. Hill, former State superintendents, read parts of the paper and offered suggestions, while Mr. Thomas M. Owen, LL.D., director of the State department of archives and history, put the historical material in his office, including many pamphlets in the Curry Collection and the original manuscript letter books of the State superintendents down to 1873, at the service of the writer. Dr. Owen also read the manuscript and freely gave the benefits of his very wide knowledge of the subject.

HISTORY OF PUBLIC SCHOOL EDUCATION IN ALABAMA.

Chapter I.

EVOLUTION OF THE STATE.

The territory included within the present State of Alabama lies between $30^{\circ} 13'$ and 35° north latitude and between $84^{\circ} 51'$ and $88^{\circ} 31'$ west longitude. It has a total land and water area of 51,998 square miles, and was first visited by De Narvaez and later explored by De Soto (1540); but the Spaniards made no attempt at settlement and for more than a hundred years there was no other visit to the territory by white men. Then came La Salle, with his idea of a French empire extending through the heart of North America, the Mississippi to be the main artery of commerce, and a chain of forts to connect Canada and Louisiana (1682). Under the impetus of this idea came the settlement at Biloxi in 1699 and that at Twenty-seven Mile Bluff, on Mobile River in 1702. In 1711 this latter settlement was moved to the present site of Mobile. This removal marks the real beginning of European settlement in that section of the United States, and Mobile was for years the center of French opposition to the westward thrust of the English-speaking peoples from Georgia and the Carolinas.

It should be noted that the Spaniards never formally surrendered their claims to the country now represented by the State of Alabama, but included it within the ill-defined boundaries of Florida, and that the English made a similar claim to it as a part of their province of Carolana, "the east of Carolana joining to the west of Carolina," according to Coxe, who was the leading exponent of the English contention; but the French remained in actual possession of the soil till the peace of Paris in 1763, by the terms of which Canada and all of that part of Louisiana east of the Mississippi River, with the exception of the island of Orleans, was ceded to England, and the city of New Orleans with all of Louisiana west of the river to Spain. By these cessions France was forced out of the Continent of North America, and the visions of La Salle's American empire vanished.

By a treaty of 1762 East and West Florida had been ceded by Spain to England in exchange for Havana, and the English flag then waved over all the territory of North America east of the Mississippi except the city of New Orleans.

In reorganizing the territory of West Florida the English in 1767 extended its boundary northward to the line of $32^{\circ} 28'$, about the latitude of the present city of Montgomery. The territory north of $32^{\circ} 28'$ was included in the English province of Illinois. During the American Revolution, Bernardo Galvez, Spanish governor of Louisiana, captured both Pensacola and Mobile, and by the treaty of Versailles in 1783 the Floridas were retroceded to Spain by England, which at the same time acknowledged the southern boundary of the United States to run down to 31° , thus ignoring her own boundary of West Florida and bequeathing a bone of contention to the United States and Spain. This territory remained a subject of dispute till 1795, when under the Jay treaty Spain acknowledged the American contention for 31° , although it was not till 1798 that the Spanish colonial officials were forced to yield recognition of the treaty. By the Federal act of April 7, 1798, a territorial government was established for the Mississippi Territory then embraced between 31° and $32^{\circ} 28'$, of like character in all respects to that over the Northwest Territory, save as to the last ordinance (slavery). A commission was provided by the act for settling the contention between the United States and the State of Georgia over all lands lying north of 31° and south of the South Carolina cession of 1787 which Georgia claimed as a part of her territory under the original charter of Oglethorpe. In 1802 Georgia ceded to the United States all her claims to this territory; and in 1804 the territory between $32^{\circ} 28'$ and 35° , including the strip of land 12 miles wide known as the South Carolina cession, was annexed to the Mississippi Territory. In 1812 Congress added to that Territory what was known as the district of Mobile, being the lands between the Pearl and the Perdido Rivers, recently taken from Spain and extending from the Gulf northward to Ellicott's line in 31° . By act of March 3, 1817, the Territory of Alabama was established by Congress, with boundaries corresponding to those of the present State. This Territory was admitted as a State of the Union by the act of Congress of March 2 and resolution of December 14, 1819.

The growth in population has been as follows:

Statistical view of growth of Alabama population, 1800-1910.

Years.	White.	Colored.	Total.	Per cent of increase since last census.	Population per square mile. ¹
1800.....			1,250		
1810.....			9,046		
1818.....			25,000		
1820.....	85,451	42,450	127,901		2.49
1830.....	190,406	119,121	309,527	142.00	6.03
1840.....	335,185	255,571	590,756	90.86	11.52
1850.....	426,514	345,109	771,623	30.62	15.05
1860.....	526,271	437,770	964,201	24.98	18.80
1870.....	521,384	476,510	998,992	3.40	19.44
1880.....	662,185	600,103	1,262,505	26.63	24.62
1890.....	833,718	678,489	1,513,401	19.87	29.51
1900.....	1,001,152	827,307	1,828,697	20.83	35.66
1910.....	1,228,832	908,282	2,138,093	16.92	41.67

¹ In 1910 land area 51,279 square miles.

² In Washington County, Ala., only. Pickett.

³ Mississippi Territory.

⁴ Excludes a few Indians, Chinese, and Japanese.

The sources of this population, as far as it concerns the older States, are shown for different decades in the following table, which includes every State which has in any decade contributed as much as 1,000 to the State's population.

Statistical view of the sources of Alabama's population.

States.	1850	1860	1870	1880	1890	1900
Georgia.....	59,997	83,517	98,028	95,872	95,875	99,654
South Carolina.....	48,663	45,185	42,971	35,764	24,355	18,921
Tennessee.....	22,541	19,189	19,797	23,859	25,185	31,085
North Carolina.....	28,521	23,504	30,280	23,269	15,491	12,102
Virginia (and West Virginia).....	10,387	7,598	29,635	24,351	16,232	15,320
Mississippi.....	2,852	4,848	10,149	13,046	15,009	20,256
Florida.....	1,060	1,644	2,764	4,029	3,969	5,924
Kentucky.....	2,694	1,966	2,580	2,524	3,983	4,207
New York.....	1,443	1,845	1,539	1,668	2,086	2,109
Ohio.....	276	265	682	1,477	3,764	4,020
Louisiana.....	628	1,149	1,753	1,785	2,286	2,750
Pennsylvania.....	876	989	727	1,199	2,318	2,533
Maryland.....	787	683	2,209	1,889	1,483	1,121
Texas.....	55	273	640	1,254	1,522	3,230
Illinois.....	114	224	309	686	1,374	2,678
Indiana.....	93	186	278	785	1,741	2,171
Arkansas.....	91	343	650	868	1,094	2,063
Missouri.....	153	191	516	572	861	1,303

Assuming these figures to be correct, and a proper foundation on which to base generalizations, it is evident that in the development of Alabama immigration has come primarily from the States immediately adjoining; that it has been in direct proportion to distance; that it has been in this case, as in most others, in the main along lines of latitude; that the population coming into Alabama in the early days was distinctively southern, and that it was not till 1890 that an increase in the northern and western elements began to command attention.

The States that seem to have contributed most to the population of Alabama are, in the order of importance: Georgia, South Carolina,

Tennessee, North Carolina, and Virginia; these States in the four censuses between 1850 and 1880, stand with three exceptions in the above order. Two of them, Georgia and Tennessee, represent a migration from the neighboring older States, Virginia and the Carolinas. It is probable that an overwhelming per cent of the Alabama population of the ante bellum period traced its origin directly or indirectly to Virginia and the Carolinas, as is shown by the following tables:

Total population Alabama, 1850.....	428, 779
Born in the State.....	236, 332
Born out of State, but in United States.....	183, 913
Born in foreign countries.....	7, 509
Birthplace unknown.....	1, 025
	428, 779
Born outside of State, but in United States.....	183, 913
Born in—	
Georgia.....	58, 997
South Carolina.....	48, 663
North Carolina.....	28, 521
Tennessee.....	22, 541
Virginia.....	10, 387
	169, 132
Born in foreign countries.....	7, 509
Born in—	
England.....	941
Ireland.....	3, 639
Scotland.....	584
Wales.....	67
Germany and Prussia.....	1, 112
France.....	503
Austria.....	33
Switzerland.....	113
Denmark, Norway, and Sweden.....	74
British America.....	49
	7, 115

It is thus evident that the States which in the decade between 1840 and 1850 made the largest contribution to Alabama's population furnished no new ethnic elements; and that the foreign contribution was neither sufficient in size, nor sufficiently different in character, to produce variation in type. There was in general large racial homogeneity.

It may be interesting to inquire at this point how and along what lines of travel, and over what roads, these immigrants got into Alabama. If the lines of travel and the location of earliest settlement are known, these facts will help explain why certain sections were in advance of others in the organization of schools.

After the province of Louisiana came into the hands of the English as a result of the Treaty of Paris in 1763, they began to encourage immigration, and the first immigrants found homes not in what is

now Alabama, but in Mississippi, coming by water up the river from New Orleans or by water down the Ohio and Mississippi from the older colonies on the Atlantic coast.

The historian Pickett, writing of the period from 1768 to 1773, says:

The English authorities encouraged emigration and many availed themselves of their liberal offer. The first Anglo-American colony came from Roanoke, in the province of North Carolina, and established themselves between Manchac and Baton Rouge. They were followed by others from North and South Carolina, who crossed the mountains to Tennessee, there constructing flatboats, descended that river into the Ohio and thence passed down the Mississippi. Others from Georgia even cut through the wilderness to find the Natchez country, which had become so favorably known. Emigrants from Virginia came down the Ohio. They all received upon their arrival liberal and extensive grants. After a while emigrants came from Great Britain, Ireland, and the British West Indies. During the three succeeding years many flocked from Georgia, the Carolinas, and New Jersey, and established themselves upon the soil by the Bayou Sara, the Homochitto, and Bayou Pierre. All these settlements extended from the Mississippi back for 15 or 20 miles. A few years afterwards the Scotch Highlanders from North Carolina arrived, and formed a colony upon the upper branch of the Homochitto, 30 miles eastward of Natchez, and their members were at a late period increased by others from Scotland. * * * In 1770 emigrants came from New Jersey, Delaware, and Virginia, by the way of the Ohio, and three years afterwards a much greater number advanced by that route.¹

In order to get a clearer conception of the growth of the Alabama country itself, it is desirable to point out (1) the four separate settlements within the present Alabama from which as nuclei the State has developed and (2) to indicate briefly the lines of travel by which these settlements were reached:

(1) In the early days territorial Alabama was made up of four distinct districts, based on the river systems to which they belonged.

(a) The oldest of these settlements was, of course, that at Mobile, which was founded by the French and later developed by the English and Spaniards. These settlers came by water. Later, Americans appeared and settled above and around Mobile in what is now Baldwin, Mobile, and Washington Counties, even before all of this had become American territory. In 1792, after Mobile itself, the most populous of these settlements was that upon the Tensas River. It was composed of both Whigs and Loyalists, the latter having been driven from Georgia and the Carolinas. This settlement was reached overland from Georgia, the creeks and rivers being passed on rafts, and household and other utensils being carried on pack horses.

(b) Next after Mobile came the American settlements on the Tombigbee River in the vicinity of old St. Stephens. This section contained the oldest American settlement in the State, and included a settlement of Georgians on the Alabama, a few miles above its confluence with the Tombigbee. This was made in 1777 and is

¹ Pickett's Alabama, Owen's ed., pp. 322-323.

believed to be one of the earliest settlements within the present limits of the State. The settlers had come overland through the Creek country from Georgia. In 1800 these settlements were included within the limits of Washington County, Mississippi Territory (now in Alabama), and a ferry across the Alabama River over Nannahubba Island, which facilitated the movements of immigrants, had been established as early as 1797. After the opening of the Federal Road the ferry was moved farther north.

From the time that the claims of Georgia to the Mississippi Territory were extinguished (1804), immigrants began to flock into what is now Alabama. One party left North Carolina, scaled the Blue Ridge with their wagons, and descended into the valley of the Tennessee. At Knoxville they built flatboats and floated down the river to the Muscle Shoals, where they disembarked their goods, placed them on pack horses which had been brought overland from Knoxville, and from the Muscle Shoals as a new basis, departed overland for the English settlements on the Tombigbee, about St. Stephens, in southern Alabama, thus traversing in a journey of 120 days from North Carolina nearly the whole length of the present State from north to south.¹

(c) The northern section of Alabama, the Tennessee Valley region, was settled mainly from Tennessee as early as 1787, and in the earlier period filled up more rapidly than some of the other sections. These immigrants came overland from the Cumberland settlements or floated down the river in flatboats from the settlements farther east.

(d) The fourth district was that along the Alabama River, with centers near Claiborne, in Monroe County, and along the Alabama River from the confluence of the Coosa and Tallapoosa Rivers down to and including the present city of Montgomery. This section was settled mainly by Georgians and Carolinians, who came in over the Government Road. From these four centers population grew and extended into the intervening sections.

(2) The lines of travel by which immigrants went into this new territory are indicated as follows: The Indians—the Creeks, Cherokees, Chickasaws, and Choctaws—had some well-defined trails through this country, and while these trails varied somewhat from one period to another they became in the main the basis of the routes for the French and English invasion. These Indian trails were followed by Indian traders and these in turn by the first immigrants, and in this perfectly natural way became the highways along which passed the settlers seeking new homes.

It will be sufficient to consider these highways under the general division of northern and eastern roads. The northern route led

¹ Pickett's Alabama. Owen's ed., pp. 466-467.

down the Tennessee River from Knoxville to the neighborhood of the Muscle Shoals. From the Shoals immigrants from Virginia and North Carolina, after floating down the Tennessee, went across the country with pack horses along the route later known as Gaines's Trace until they struck the Tombigbee at Cotton Gin Port in the present Monroe County, Miss., and thence to St. Stephens by water. On the other hand, others, instead of taking to the Tombigbee route, left Gaines's Trace and went south by land over the open prairie.

In 1801 the Government secured by treaty with the Chickasaws and the Choctaws the right to open a road from the Nashville country to the Natchez district. This road crossed the Tennessee River at Colbert's Ferry and was also utilized by immigrants coming into Alabama from the Tennessee country. About 1805 the Government acquired from the Cherokees the right of way for a road from Knoxville down the river. This road crossed the Tennessee at the Muscle Shoals and then joined the Natchez Trace.

The other great route was that which led to central Alabama from Georgia. It was secured by treaty with the Creeks in 1805. This route did not differ essentially from the older trade routes that in turn followed the Indian trails. The one leading to Alabama struck Georgia at Augusta, crossed the Savannah there, and branching, turned north and northwest to the Cherokee and Creek country. Another branch turned west to the territory of the Lower Creeks which it struck at the Ocmulgee. It passed old Fort Hawkins (near Macon) and thence to the Chattahoochee not far from the present Columbus, Ga. It passed to the south of Montgomery, along what is now the eastern boundary of Monroe County, to old Fort Mims, from which one arm reached out to Mobile at the south and the other to St. Stephens farther west, whence it passed on across the Choctaw country to Natchez. In the early days this road was in reality a mere trail—marked by three notches cut in the trees. The houses of accommodation were few in number and indifferent in kind, being kept by Indians and halfbreeds. The rivers and creeks were unbridged and without ferries.¹

With the improvement of the road by the Federal Government, the use of this route much increased. Hamilton says² it became for Alabama what the Via Appia was for the country south of Rome, and Pickett tells us that by 1810 the population of Washington County, Ala., was about 6,000, made up of Georgians and Carolinians who had come in over the "Three Chopped Way" from the east, and of Tennessees who had come down from the north.

Jackson's military road cut southwardly from the Tennessee River into the Creek country of eastern Alabama, and the "great

¹ Pickett's Alabama, Owen's ed., 486

² See Hamilton's article on early roads in Alabama, Publications Alabama Historical Society, II, 39-56.

Tennessee road" to Jones's valley in Jefferson County made access to the north easier still. But these roads belong to the later period of development and growth, rather than to the earlier one of exploration and settlement.

In the Memorial Record of Alabama Mr. Thomas H. Clark calls attention to the boat as an emblem of progress during the earlier days. This may be illustrated by the history of 90 barrels of flour sold in Montgomery in 1822. This flour was made from wheat grown in Washington County, Va., was ground on the Holston River 10 miles away, floated 150 miles down that river on flatboats, then 40 miles up the Hiwassee, then 10 miles up the Ocoa (Ocoee) to Hildebrand's Landing, then 12 miles by portage across country to O'Dear's, on the Connussowga,¹ thence by flatboat again into the Coosa, and thence to Montgomery, where it arrived after a journey extending from February 20 to April 27. Even this long haul was then found to be more profitable than to bring up freight by flatboat from Mobile. But this era was now passing. In 1821 a steamboat had arrived at Montgomery, from Mobile, in 10 days, and as soon as the steamboat had been adapted to commercial uses the problem of transportation was solved as fully as it could be until the coming of the railroad.

Thus we see immigrants came into the new land by all water or by all land routes, and by routes that were part one and part the other; they came with pack horses and on foot; later with rolling hogsheads, even ox-drawn, and finally by wagon. They came as individuals, as families, and even as communities. They brought with them their institutions, culture, religion, industries, and education. It was a new *völkerwanderung* of English-speaking men. The instinct that for two centuries had been driving their fathers to America now sent them into a new wilderness in pursuit of the same ideals—fortune, happiness, and liberty.

The United States Census for 1880 indicates the distribution of the population in Alabama from the various contributing States, and this may be assumed to be essentially correct for the earlier decades also. According to these census maps, which undertake to show the localities to which emigrants from the older States removed, the majority of the North Carolina immigrants were settled in the north-eastern and black-belt counties of the center. The South Carolinians, spread over nearly the whole of the eastern half of the State, had occupied the black belt, and in considerable force had pressed over to the western boundary. The Virginians went into the black belt, occupied the eastern part of the Tennessee Valley, and made their homes in the southwestern corner, in Washington and Mobile

¹ During this period there was much discussion in Tennessee on the question of uniting these rivers by a canal. In 1826 Tennessee chartered a company to cut such a canal from the Hiwassee to the Coosa.

Counties, for they represented a large part of the original immigrant settlers. The relation of Georgia to Alabama is like that of a natural overflow, being heaviest in the eastern half, but reaching the western boundaries in considerable numbers, except in the extreme northwest corner and on the middle and headwaters of the Tombigbee, but increasing in numbers again in Washington and Mobile Counties in the extreme southwest and on the banks of the Perdido.

In a preeminent degree does the Tennessee population represent the idea of an overflow. It was heaviest in Jackson, Lauderdale, Limestone, and Madison Counties, all of which lie north of the Tennessee River. The next in importance for their Tennessee population are Colbert, Dekalb, Lawrence, Marshall, and Morgan Counties, which represent the first tier of counties south of the Tennessee River.

It seems fairly accurate to say that the various sections of the State during the early days had a more or less distinct and characteristic population of its own, one which was fairly differentiated from other communities by the source from which that population was derived. The one exception to this general statement is the black belt that lies on both sides of the Alabama River and includes the counties of Montgomery, Lowndes, Autauga, Dallas, Perry, Marengo, Hale, Greene, and Sumter. This was settled early and in common by immigrants mainly from Virginia and the Carolinas, who, being attracted by the fertility of the soil, brought in large bodies of slaves and began raising cotton.

In the early days and until the time of the Civil War Alabama and Mississippi performed for the old Southwest the function which Ohio and Indiana performed for the old Northwest. They served as a stopping place, as a sort of reservoir, in which one or two generations spent their lives before the movement into the newer golden West was resumed. The census records show that migration from Alabama has been uniformly westward, overflowing heaviest into eastern Mississippi, then jumping over the high lands of the center, settling in the Mississippi Delta country; thence crossing the river into upper Louisiana and all of Arkansas, except the northern quarter, and thence into eastern Texas.

Chapter II.

PRIVATE SCHOOLS BEFORE THE CIVIL WAR.

As the majority of the first settlers of Alabama came from the older Southern States, they brought with them the educational systems that there obtained. These systems produced private schools and academies—organized, conducted, and supported independently of any State action. The most expected from the State was incorporation. This gave the trustees a legal existence, and endowed them with full powers to conduct their business. The first act of incorporation was issued in 1811; many of these acts gave special favors; this favoritism became so bad in 1856 that Gov. Winston vetoed various college and academy acts and demanded that all schools be placed “on the same favorable footing” by general law and that no special favors be granted. But the system was then in the ascendant, and the special acts of incorporation became law over the governor’s veto. This tendency may be shown by the statement that there was no general law exempting school property from taxation till 1832. Before that it was taxed or not taxed according to caprice or pull. In the same way some institutions were expressly allowed to raise money by lottery, while others were not. The charters were, as a rule, drawn in the most general terms. This indefiniteness may have been due to lack of experience in educational legislation, but it was more probably intended to give the widest scope for educational endeavor. The acts, most of them based on the same stereotyped model, recited the names of persons who were to serve as trustees, the name of the new institution, in very general terms the purpose for which it was organized, the powers of the trustees and officers, the character and kind of education that might be given, the power to confer distinctions, diplomas, favors, or degrees, and the amount of capital that might be held, which was generally fixed; exemption from taxation was often specifically granted¹ and was generally coupled during the later years with a provision against the selling of liquors within a certain distance and in earlier years with the provision to raise money by lottery.

No report to a State authority was at any time required; no supervision or inspection under public conduct was to be exercised. The

¹ Act of January, 1832, exempted from taxation all houses and lots held by incorporated academies as long as used for educational purposes.

State was content to give the schools official life and then let each work out its own salvation. It was a policy in which there was a literal survival of the fittest.

Some of the leading institutions chartered in Alabama before the Civil War, and their distinctive features, are as follows:

I. PRIVATE SCHOOLS SUPPORTED ENTIRELY FROM PRIVATE SOURCES.

Pickett says (p. 469) that John Pierce established the first American school in Alabama in 1779 at the Boat Yard on Lake Tensas. "There the high-blood descendants of Lachlan McGillivray, the Taits, Weatherfords, and Durants, the aristocratic Lindners, the wealthy Mimses, and the children of many others first learned to read."

With the organization of the Territory of Alabama, the cause of education came to the front. At the meeting of the first Territorial legislature in January, 1818, Gov. Bibb recommended the encouragement of education and the establishment of roads, bridges, and ferries, and the assembly responded to the governor's recommendations.

At the next session the Territory took a unique way of giving what was practically an endowment to two of the academies then at work. The law permitted the banks at St. Stephens and Huntsville to increase their capital stock by selling shares at auction. The profits to the extent of 10 per cent were to go to the stockholders; any profits above 10 per cent were to be applied to the support of Green Academy in Madison County and St. Stephen's Academy. We have no report as to how much was received for education under this law.¹

With the organization of the State the chartering of educational institutions begins in earnest. It may be assumed that these charters in most cases represent work projected, but not all were in this class, for the acts of incorporation sometimes state that the institution was already in working order. The following list does not give all that were established; only those institutions are here mentioned which seem to illustrate some principle.

1811.

The first legislation on education in what is now the State of Alabama was by the Mississippi Territory in 1811, when it chartered an academy in Washington County. It was called Washington Academy, and the exact location was to be fixed. It was made free from taxation, and given authority to raise \$5,000 by lottery. In 1814 this act was so amended that the proposed academy might be located in either Washington or Clarke County, which amendment would seem to indicate that the academy had not yet gone beyond the paper stage.

¹ Pickett's Alabama, Owen's ed., 634.

1812.

Green Academy, in Madison County; the trustees were empowered to locate the academy and to contract for buildings; they were to be free from taxation and might raise \$4,000 by lottery. By act of December 13, 1816, Green Academy was given \$500 from the Territorial treasury.

1818.

St. Stephens Academy incorporated. By act of December 13, 1816, an academy of this name had been given \$500 from the Territorial treasury. This was presumably the academy in Washington County, first chartered in 1811.

1820.

Solemn Grove Academy, Monroe County. Estate of corporation limited to an annual income of \$10,000.

1821.

Sparta Academy. Lottery for \$2,000 for buildings.

Montgomery Academy. Lottery for \$5,000 for buildings.

1822.

Athens Female Academy, Limestone County.

Jefferson Academy, Elyton; might hold \$10,000 in real estate and raise \$5,000 by lottery.

1823.

Huntsville Library Company. James G. Birney was one of the incorporators.

Claiborne Academy, Monroe County. Amended in 1824 so the trustees could purchase a site and locate the seminary.

1825-26.

Coosawda Academy, Autauga County. Allowed to hold \$10,000 worth of property.

Concord Academy, Greene County. Its annual income was not to exceed \$10,000.

Moulton Library Company. Incorporated and allowed to hold property up to an annual value of \$10,000.

Milton Academy, Montgomery. To raise \$3,000 for buildings by lottery and to hold property of not over \$3,000 per year.

Four other academies incorporated.

1826-27.

Act for school on the Lancastrian plan at Huntsville; lottery for \$2,500 to be devoted to buildings.

Greenville Academy, Butler County; was allowed to hold \$10,000 in property and to raise \$5,000 by lottery.

Tuscaloosa Library Company, a joint stock company, but banking powers especially forbidden; lottery to raise \$1,000; limit of property, \$5,000.

1827-28.

Henry County Academy and Court House, to be built out of a \$5,000 lottery.

Phylomathian Society, at Somerville, incorporated and given power to raise \$500 by lottery to purchase a library.

Franklin Female Academy, Russellville, Franklin County. Building already erected; exempted from taxation; apparently first institution thus specifically exempted; male and female departments separate, but under same management.

1828-29.

Agricultural Society, Greensborough; property limited to \$5,000.

Wilcox Society, Wilcox County, "for encouragement of literature;" might hold \$10,000 tax free.

Athens Male Academy, Limestone County. Teachers and students exempted from military service during school sessions.

1829-30.

La Grange College. Act provides 50 trustees; limit of property, \$300,000; might establish a preparatory or primary school and confer degrees, a purely literary, scientific, and undenominational institution, as the trustees are "prohibited from the adoption of any system of education which shall provide for the inculcation of the peculiar tenets or doctrines of any religious denomination whatever." Apparently the first institution after the university empowered to confer degrees.

1830-31.

Tuscaloosa Female Academy was exempt from taxation and was to raise \$50,000 by lottery.

Jefferson Academy, Elyton, Jefferson County, was chartered with a property valuation limit of \$10,000. It was composed of two schools, a male and a female, each distinct and separate from the other. (See also 1822.)

Seven other academies chartered this year.

1832-33.

Summerville Female Seminary, Morgan County. Stock company with private stockholders and a capital of \$20,000.

Academy near Statesville, Autauga County. Lottery for \$5,000 authorized for building. This academy seems to have been incorporated for the purpose of getting the lottery.

1833-34.

Alabama Institute of Literature and Industry; property limit, \$200,000. This is like all other acts of incorporation, only bigger.

The Manual Labor Institute of South Alabama, Perry County, was incorporated December 16, 1833, and made big promises which were never mentioned again, even in the text of the law. It might confer degrees "in the arts and sciences," and the trustees might govern the students "by rewarding or censuring them," but there is no further mention of manual labor beyond the title, and in other respects the institution was like others. The title was changed to Madison College in 1839.

1834-35.

Alabama Female Institute takes over property of Tuscaloosa Female Academy.

1835-36.

Wesleyan Female Academy, Tuscaloosa, was already in existence when official incorporation took place. So with other institutions incorporated this year.

Spring Hill College, Mobile County. This institution was to confer degrees and to have a president, a professor of divinity and of mental and moral philosophy, another of chemistry and natural philosophy, one of mathematics, and one of ancient and of modern languages. It was permitted to confer degrees.

1838-39.

Franklin Academy, Suggsville, Clarke County, might hold not over 80 acres of land, free of taxation.

The charter of Mobile College indicates an effort looking toward general supervision by some central authority (as the University of the State of New York). The charter was issued and the right to grant degrees was allowed, but the institution must first—

sufficiently satisfy the president of the University and the president and board of trustees of the University of Alabama that such a collegiate course is pursued in the college of Mobile, in the arts and sciences, as will justify the conferring of such degrees.

Sixteen academies were chartered this year.

1839-40.

The capital or capital stock of the academies was gradually increasing in amount, and exemption from taxation was now the rule rather than the exception.

Clayton Male and Female Academy, Barbour County, might "confer such honors on graduation as to them may seem expedient."

Evergreen Male and Female Academy, Conecuh County, no spirits to be sold within 1 mile. This provision from this time became the rule.

Twenty-three institutions of the grade of academy chartered; 2 in Russell, 2 in Barbour, 2 in Macon, 2 in Benton (now Calhoun).

1840-41.

Centenary Institute of the Alabama Conference of the Methodist Episcopal Church, Dallas County. Allowed a capital of \$60,000 "over and above its library and apparatus;" authorized in 1844-45 "to confer degrees and grant diplomas."

1841 (SPECIAL SESSION.)

Howard College, Madison, Perry County; \$200,000; allowed to grant "degrees in the arts and sciences;" evolved from an institution organized out of a manual labor school idea.

1843-44.

Nine acts passed relating to the academies of the State; none out of the ordinary nor of special significance.

1844-45.

Centenary Institute was authorized to "confer degrees and grant diplomas."

Dayton Literary Association, under the name of the Dayton Female Seminary, was authorized to confer degrees.

The Alabama Medical University, located at Wetumpka and by amendment anywhere in the State, was authorized to confer M. D. after "two full courses of lectures."

Twelve acts passed relating to academies.

1845-46.

This year nine acts were passed incorporating academies and giving some of them authority to confer degrees. The administration of the sixteenth section was a matter of increasing significance, as seen from the laws.

1847-48.

Nineteen academies chartered; others had their charters amended. Some of the acts of incorporation are now very detailed and exact in their wording and yet add little to the subject. This year a general act against selling or giving away liquor to students of the university or to pupils of any academy or school was passed.

1849-50.

From this time the sympathies of the legislature begin to broaden. It is the age of public improvement, of corporations and railroads, and legislators now have less time for consideration of the wants of local institutions.

La Grange College, charter and plans enlarged.

Medical College of the State of Alabama was chartered and located at Montgomery.

1851-52.

The day of the college was now dawning in Alabama. The university, either expressed or implied, was also drawing nigh.

The Central Masonic Institute of the State of Alabama emerged from its old chrysalis as the Masonic University of the State of Alabama—the second to have the name of university and one of three to acquire at this session the name if not the substance of a university.

The North Alabama College, located at Huntsville, under the Synod of West Tennessee, was chartered, with \$100,000 capital. It was to have a professorship of agriculture, one of civil engineering, and one of the “mechanic or fine arts,” as well as departments of law, medicine, and theology—a university in the making.

McGehee College, under the auspices of the Methodist Protestant Church of Alabama, Mississippi, Florida, South Carolina, Georgia, and other States, already had \$30,000 subscribed and with a capital of \$100,000 was to start as a full-fledged university with power to “confer all the degrees of literary and scientific distinction.”

Besides the above, there were chartered 4 other degree-conferring colleges and 18 institutes, seminaries, and academies.

1853-54.

The Southern Military Academy, Chambers County, was allowed to raise by lottery, although this custom had fallen into abeyance 20 years before, the sum of \$25,000, “to increase the staff of instruction” in the academy; to “enlarge the apparatus; reduce the tuition and to aid generally.”

Thirteen academies were incorporated.

1855-56.

There was this year evidence of friction between the governor and the legislature, for we find seven acts incorporating institutions vetoed and then passed over the gubernatorial veto. This list of vetoed acts included: The Medical College at Mobile; Florence Synodical Female College; Chunenugge Female College, Macon; Southern University, at Greensborough; Florence Wesleyan University and the East Alabama Male College, at Auburn.

In 1857-58, 19 institutions were chartered; in 1859-60 the number was again 19, but there was apparent a change in legislative perspective and feeling. The State was awakening to the significance of the new industrial era. Many acts related to the chartering of railroad, turnpike, and navigation companies; many others to bank and insurance companies, and the rampant war spirit was everywhere perceptible through the incorporation of military organizations and the permission to schools to add military instruction to their courses. The State, for its part, furnished arms and equipment.

II. SCHOOLS SUPPORTED IN PART OUT OF PUBLIC FUNDS.

Although the usual custom in Alabama during the ante bellum period was to allow each institution to work out its own educational salvation, exceptions to the rule were numerous and important. The lottery provision in so many of the early charters may be considered a sort of subsidy from the public, and we have seen how, as early as 1816, Green Academy and St. Stephens Academy each received a gift of \$500 from the Territorial Legislature of Mississippi, apparently without any equivalent or any limitation on the way it might be expended. The second Territorial Legislature of Alabama, that which met in the fall of 1818, after allowing the two banks in the Territory to increase their capital stock, required all profits over 10 per cent to go to the two academies mentioned above.

There were also early in the nineteenth century mission schools established among the Choctaws and Chickasaws of Mississippi that had indirectly an influence on the whites in Alabama and received Government assistance. These schools were under the direction of the missionaries of the American Board of Commissioners for Foreign Missions and were established in 1812 and 1819. They were industrial schools in the modern sense. The boys were taught to plow and to hoe; the girls to spin and weave, sew and knit, make butter and cheese, and keep house. So successful were they that in 1824 the American Board of Commissioners for Foreign Missions was reported as having 10 schools with 39 teachers (employees) and 208 pupils among the Choctaws. These schools cost

\$26,109, of which the Federal Government paid \$2,350 tuition. Among the Chickasaws there were reported two schools with 26 teachers and 75 pupils. They cost \$3,283, of which \$900 was paid by the United States. It was reported that these Indians, unlike those of the present day in the farther West, were anxious to have more schools and that in 1825 the Choctaws had been appropriating out of their funds held by the Federal Government \$12,000 per year for nearly 20 years for education and that the Chickasaws had given at least \$30,000 for the same end.¹

By an act of 1823 Green Academy, after paying \$400 for a slave killed while working the public roads, was allowed for five years the fines and forfeitures collected in Madison County.

An act passed in 1824 provided that the county court of Baldwin should erect ferries over Tensas River, Mobile River, and Mobile Bay and let them to the highest bidder. The rents from these ferries were to be a "perpetual fund for the support of an academy and an hospital in the County of Baldwin."

In 1825-26 schoolmasters, teachers, and students were exempted from military duty by act of the assembly.

In 1826-27 a memorial to Congress in behalf of the Lafayette (Female) Academy at La Grange recites that a "handsome building," but of small dimensions, had been erected "for both sexes," that it had been in operation for 12 months with 80 or 90 students. The memorial then asks for a quarter section of land, "which quarter section is extremely sterile and is of no value" except as a site, and for other quarter sections up to 15.

The Valley Creek Academy, Dallas County, incorporated in 1828-29, was to have the sixteenth section lands. They were to be sold and the income devoted to the use of the academy. This act was repealed just a year later.

In 1830 a joint memorial of the legislature to Congress recites that "common schools are not places at which females can receive more than the first rudiments of education," and for that reason asks two sections of land in each county for female academies.

By act of 1832-33 the Blountville Academy was to have "a fair proportion of the net annual proceeds" of the sixteenth section fund. In the same way the trustees of Pendleton Academy at Coffeeville, Clarke County, were to control and administer their sixteenth section.

An act of 1835-36 authorizes the trustees of literary institutions to deposit their funds in the State bank of Alabama for not less than five years, guarantees the principal, and promises 6 per cent. This was the beginning of trouble for such institutions.

¹ See Publications Miss. Hist. Society, vol. 8, p. 589 et seq.

Clayton Male and Female Academy, in Barbour County, chartered in 1839-40 with a \$20,000 exemption from taxation and with authority to "confer such honors on graduates as to them may seem expedient," was to have the sixteenth section lands of its township.

In 1843-44 the military academy at Eufaula, a private institution, was furnished by the State with arms, and this custom became progressively more and more common.

In 1845-46 we find an act which directs the township commissioners to distribute funds pro rata, whether the children attend in that district or elsewhere, and to pay for those who go outside the district to school.

But as time moved on toward the turning point of half a century, it became more and more evident that the center of interest was gradually changing from the old private academy to the new public school. It was fate that the former should decrease, while the latter should increase.

Chapter III.

ADMINISTRATION OF THE SIXTEENTH SECTIONS, 1819-1914.

The citizen of Alabama had had the sixteenth section lands as a basis for public school support presented for his consideration from the earliest times. It was recognized in the ordinance under which the Mississippi Territory was organized; it was in the enabling act of March 2, 1819, which organized the Alabama Territory, and in the State constitution of 1819. "Schools and the means of education shall forever be encouraged," that instrument said, and it further directed that measures be taken to preserve from waste "such lands as are or hereafter may be granted by the United States for the use of schools within each township." It follows that when the Alabamian came to administer the sixteenth section lands for the benefit of his local schools he was on ground already familiar, at least in theory.

The earliest acts dealing with the sixteenth sections sought to make them a source of income for the schools, and it seems proper to review briefly the acts passed during the generation preceding the adoption of the State-wide public school law on February 15, 1854. In this way clearer comprehension can be had of what was attempted, although the laws themselves are disjointed, disconnected, and without logical relations.

Passing over, as immaterial, all the acts dealing with the seminary lands, since these belonged to the university, the legislature of the newly created State, on December 17, 1819, among its very first acts, passed one providing for leasing the school lands "for the purpose of improving the same." In 1820 the limit of leases was extended, and there begins a series of special acts modifying the original law in favor of particular claimants that in time worked havoc with the school lands. On January 1, 1823, a more elaborate act regarding the leasing of lands and the organization of schools was passed. Under the new law the county court was to appoint three school commissioners who were to survey the school lands, plat and lease them at auction for 10 years. Improvements might in part take the place of the annual rental. Another act of the same year allowed the people interested to fix within certain limits the length of their leases.

In 1825 is to be found the first incorporation of a school township, the purpose evidently being to give its trustees greater liberty of action. In this case they were authorized to lease their lands for 99 years to the highest bidder, the upset price being \$17 per acre, reduced in 1827 to \$12. The proceeds were to be invested in United States Bank or State bank stock, the interest only being used for the support of schools. Other acts of incorporation provided for sale or lease, under varying conditions of price and time.

The fortunes of the Alabama public school lands are inseparably bound up with those of the State bank. Under the original charter of the bank of the State of Alabama (1823) funds arising from the sale of university lands were invested as a part of its capital stock. By act of January 15, 1828, it was provided that the school commissioners should submit to the voters of the township the question of the sale of their school lands. The notes received in payment bore 6 per cent interest and were to be deposited in the State bank. The principal as collected might be invested in bank stock paying 6 per cent interest and guaranteed by the State.

In the thirties there was developed a tendency, encouraged by special acts, to withdraw this principal from the central bank and redeposit it in the branch bank, in order that local borrowers from the townships where these funds originated might be favored. This legislation in favor of local borrowers hampered the bank administration and was doubtless an additional cause of loss to the fund.¹

An act of November, 1837, provides for either lease or sale. The proceeds, deposited in the State bank or its branches, were to be regarded as the "capital stock of the said township," and were not to be diminished, the interest alone being used for schools.

It would appear that the terms authorized by this act were popular, for much land was sold. But trouble soon began, for at the very next session private acts were passed extending for certain individuals the time of payment. In 1839-40 the bank was given authority to extend all notes for four years, and in 1843-44 by joint resolution they were again extended for a year. In 1842-43 a general act had provided for the cancellation of sixteenth section sales when it was thought that "by reason of the insolvency of the purchasers * * * or from other cause," the sale could not "be made productive." As a result the legislature was swamped in 1843-44 and 1844-45 with private acts providing for cancellation of sales. These requests came principally from Russell, Talladega, Tallapoosa, Wilcox, Washington, Barbour, Dallas, Sumter, Greene, Marengo, Cherokee, Lawrence, and Chambers Counties, a majority being in

¹ The chapter on the history of banking in Alabama, printed in Knox's History of Banking in the United States, and written it is believed by James H. Fitts, of Tuscaloosa, states that under the act of 1828 something like \$1,300,000 of sixteenth section funds were invested in the State bank, but it is believed that this is an overestimate, as will be seen later.

the black belt which represented the highest degree of industrial development the State had then attained.

In the meantime the State had entered on a new era of prosperity, everybody was speculating and borrowing, and the State bank was making so much money that on January 9, 1836, direct State taxation was abolished and on the State bank was placed the burden of "defraying all the necessary expenses of the government" of the State up to \$100,000. The school fund came in for its share of this prosperity, and the law of January 31, 1839, ordered the bank to pay to the schools \$150,000 annually; the law of February 3, 1840, increased this to \$200,000. These laws concern mainly the administration and use of the sums earned by the sixteenth section funds, and are therefore considered in detail in chapter 5. But it is proper to add here that while the share of the Surplus Revenue of 1836 coming to Alabama and amounting to \$669,086.78 had been made a part of the school fund and deposited in the State bank as a part of its capital stock, the sum of \$200,000 demanded under the law of February 3, 1840, as interest by the State for all of its school funds, was much more than a fair rate of interest on both the sixteenth section and Surplus Revenue funds would allow, and the difference between the actual interest and the sum required must be regarded as a privilege tax placed on the bank and its branches for the right to do business. It was entirely in accord with the spirit of the times which looked to the State bank for the expenses of government. From 1836 to 1842¹ State taxation was abolished, and the necessary funds for the conduct of public business came out of the profits of the State bank and its branches. The bank's success as a financial institution made possible the acts of 1839 and 1840. But this prosperity did not last. It was found necessary by February 13, 1843, to repeal the act of January 9, 1836, and revive taxation for State purposes; and, since the bank could no longer meet its obligations either to the State or to the school fund, the \$200,000 contribution required by the law of February 3, 1840, was also repealed (act of Jan. 21, 1843). It would appear that practically the whole income of the public school fund was cut off by this failure of the bank. What that income was during the next five years is uncertain, but it is certain that it was unimportant. We shall see how the State later provided funds by recognizing the now worthless State bank certificates as a valid claim against itself, thus creating a paper fund.

¹ Du Bose, Alabama History, p. 116; Knox's Banking says 10 years, 1826-1836. "We are satisfied that the profits arising from this fund [the 2 per cent and 3 per cent funds] must have been considerable, for the pregnant reason that the legislature by act of 9th January, 1836, abolished direct taxation for the support of the State Government, and the second section of said act imposes the heavy burthen upon the banks of 'defraying all the necessary expenses of the government of this State.' It is evident that the banks must have been in a sound and prosperous condition, or this unwise legislation of abolishing all taxes would not have been adopted and carried out for eight years before the taxes were reassessed."—Report of Joint Select Committee on the Two and Three Per Cent Funds, p. 7, Montgomery, 1860. See the act of Jan. 9, 1836, in Session Laws, 1835-36, p. 43. County taxes continued.

During the decade of the forties the State took steps to secure the equivalent of sixteenth section lands for those counties which lay within the Chickasaw cession in Alabama. It was mindful also that all sixteenth sections were not of equal value, and as early as 1828 it sent a memorial to Congress on this subject. In 1848 the legislature asked Congress to grant for educational purposes all the unsold lands in the State; another joint resolution of the same session, after declaring that the sixteenth sections had "utterly failed to accomplish the noble object" for which they were intended, asks that the lands granted by act of September 4, 1841, be applied to the valueless sixteenth sections.

The legislature failed to receive for educational purposes all of the unsold lands for which they asked, but their memorials eventuated in various Federal acts under which the State was allowed to locate lands, some of them in other States and in the Territories (i. e., Louisiana, Arkansas, Nebraska), in place of the Chickasaw cession lands that had been sold, and to apply "for the use of schools" in those townships where the sixteenth sections "are comparatively valueless" the 100,000 acres which had been granted by act of September 4, 1841, for internal improvements.¹

In the meantime the State bank had run its brilliant, but unfortunate course. After meeting the expenses of the State government for some six years out of its profits, it failed, with a debt of \$14,000,000 in outstanding bills in circulation, which cost the State in interest \$16,840,000 before final liquidation. By act of February 4, 1846, the bank was placed in the hands of Francis S. Lyon and others as commissioners and trustees for final adjustment. This law gave the schools and the university a prior claim by providing that the commissioners "retain in their hands a sufficient amount of the assets * * * to pay off the amounts that may be due the several townships * * * and the interest on the university fund."

But this was not a final settlement. The matter was up again in the session of 1847-48. A senate committee was instructed to consider "what further legislation is necessary" for the safety and security of the fund, "the amount and condition of that portion of the proceeds of the sold sixteenth sections which has not yet been collected, and what reasons are proper for its collection and safe management."

The committee report is dated February 1, 1848. The committee had examined such of the records as were available and found that on December 1, 1847, \$953,835.38 had been collected from school lands sold, and that the interest then due on these sums was \$73,-030.19. They asked the bank further, "What disposition has been

¹ See United States Statutes for Sept. 14, 1841; Feb. 26, 1845, and Mar. 3, 1847; and Alabama laws of Jan. 27, 1846; Mar. 4, 1848; Jan. 5 and Feb. 13, 1850, together with memorials and laws for sessions of 1848-49.

made of the money paid into the bank, and what is its condition now?" The branch bank at Decatur had "loaned it out indiscriminately with other funds, and the amount now forms a part of the good, bad, and doubtful debts due the State." This was substantially the case at the Tuscaloosa branch bank. The branch at Montgomery stated that the amount paid in "stands to the credit of the several townships and is a charge against the general assets of the bank." This seems to have been the case also at Mobile. The branch bank at Huntsville reported that the sums paid in stood "to the credit of the different sixteenth sections, called principal or capital, no part of which has been drawn out of bank, and upon which the bank pays interest quarterly."

Thus it appears that only at Huntsville was the sixteenth section fund likely to recover anything from the bank; here alone did it represent actual cash.

The committee found further that the banks held school land notes to the extent of \$453,346.73, of which \$208,290.84 was in suit. The committee could not discover how much money had been collected by attorneys, marshals, and other officers and agents of the bank, by sheriffs, coroners, or clerks, and never as yet paid to the banks. They estimated that not less than \$15,000 had been collected and retained in the hands of school commissioners.

The policy of the State was now to wind up the banks and dispenze with their services as agents. Two parties then appeared in the committee. The minority thought the State should withdraw as much as possible from the administration of the funds by turning over "to the management of suitable persons in each county * * * the uncollected sixteenth section notes and enough of the notes and available assets of the banks and branches to equal the amounts which have been collected."¹

The majority of the committee took just the opposite view. In the meantime Hon. Benjamin F. Porter introduced into the house of representatives a bill—

for the preservation of the sixteenth section grants, and to establish, permanently, in the State of Alabama, a common school fund so as to fully secure the intellectual improvement and moral welfare of the youth of the State.²

Judge Porter's bill failed to become a law, although vigorously pressed. He made an elaborate speech in its favor, which is quoted here because it opposes the arguments of the decentralizing party, whose views had already almost caused the dissipation of the school funds of the State, and outlines other plans which were later sub-

¹ See report of the committee on sixteenth sections, Montgomery, 1848, p. 7.

² Copy in Curry Collection in Alabama State Department of Archives and History, Montgomery, n. t. p., n. p., n. d., O., pp. 15. Placed by Owen in his Bibliography as of 1847-48.

stantially enacted into law. He showed by citations from Alabama court decisions that Congress granted the sixteenth sections—

to the people of the State, with whom it was then in contract, for the people of the townships, that for them a fund might be raised to exist in incessant continuance for school purposes.

He proved also from the law writers that the legislature could not give up its trust:

The act by which the State for the present throws off her obligation to apply and secure this fund herself will prove the occasion of an awful responsibility in coming times.

The law authorities all prove, he continued—

that whether we take the object of the trust or grant, or its letter, the legislature has very extensive authority over the fund in applying it to effecting the purpose.

The opposition said that Judge Porter's bill limited "the perpetuation of schools in each township."

He answered:

Not so; the bill secures these forever, and equalizes the fund by adjusting the surplus income and throwing it upon the township having no income. To this arrangement the whole people of the State are parties.

The speaker then branches off into an instructive review of the educational situation in Alabama:

Under the existing system * * * the surplus incomes of these wealthy townships are usually expended in magnificent palaces, which but shame the cause of education. * * * Under this partial system there must be much extravagance, much inequality. Instances could be given. * * * In one, no less than \$1,600 is paid for two teachers annually; in another, \$3,000.

He then cites particular counties, with their sixteenth section income, the number of children (under 20), schools and pupils enrolled:

School statistics.

Counties.	Sixteenth section income.	Children.	Schools.	Pupils.
Benton.....	\$534	7,054	38	1,076
Blount.....	214	3,410	8	164
Greene.....	7,252	4,300	.....	173
Sumter.....	8,767	8,912	16	382
Clarke.....	26 cts.	2,765	.....	.....

He stated further that, out of a white population of 335,185, there were 22,592, or nearly 7 per cent, above 20 years of age who could neither read nor write.

He then reviewed with some detail the proposals of his own bill, some of which will be met again in a more successful one.

He proposed the appointment of commissioners to choose an agent who was to be practically a State superintendent. The education provided for the boys was to be—

essentially beneficial. It looks to the ordinary duties of manhood, socially and individually; the mechanic arts, agriculture, architecture, engineering * * * I intend no partial, fanciful system; but a gradual, well-developed method of instruction, both for body and soul.

The girls were to be trained on "a more general and efficient plan of education." The bill proposed further the redemption of the sixteenth section fund by means of taxation. Says Judge Porter:

You have banked on this fund and have liquidated your banks. It is therefore your duty to redeem it. The plan gives the State the use of the principal and binds her to the prompt and perpetual payment of the income, and its application to the gradual establishment of schools in every township in the State. The income will be about \$100,000 yearly. Schools are secured in every rich township, and the surplus is applied to the support of schools in the poorer sections. In consideration of this equalization, 10 per cent of every revenue collected is carried to the fund. When it is considered that the fund is now lost; that it must be redeemed by taxation, upon the poor as well as the rich; upon those who have large incomes, as well as those having none from their sixteenth sections; no plan can be more equitable or just.

But Judge Porter's bill failed to pass and the views of the majority of the senate committee were finally embodied in the law of March 6, 1848, for the adjustment of the affairs of the State bank and its branches required the rewriting of the State law dealing with the sixteenth sections. The new law (March 6, 1848) provided that all funds from sixteenth section lands be vested in the State "as trustee for the several townships" (who were the owners) and be paid into the State treasury. The public comptroller was to report on the funds that were due each township. The governor was to issue to the townships a certificate of the amounts due each, with additional certificates when other amounts were received. The county tax collector was required to deposit with the county treasurer an annual sum equal to the interest at 6 per cent on the certificate then held, on which the school commissioners were to draw. Funds derived from land sales were no longer to be invested in "State stock or securities."

A law of 1851-52 secured for the funds also such sums as had been collected by bank officials from purchases of sixteenth section lands, but not turned in. For these sums, as for the other moneys derived from land sales, the comptroller was required to issue certificates of State stock to the proper township.

It would appear from these laws: (1) That the school fund in theory lost nothing by the failure of the State bank, while in reality it lost everything; (2) that each county was forced to raise by general taxation its share of the sums which it might receive back again under the

fictitious name of interest if it happened to own sixteenth section lands; (3) that by this legerdemain the State shifted from itself to the taxpayers the burden of providing the annual interest on a paper fund, the principal of which it had invested and lost; and (4) that the same policy was kept up when funds were received from new land sales, the cash receipts being used and interest-bearing certificates taking their place. The superintendents and auditors inveighed against this plan, but without effect. It is the scheme in use to-day.

The seemingly most important school question during these years was to find a way by which the income of these sixteenth section funds, belonging to the separate individual townships, might be so equalized as to serve the State as a whole rather than isolated communities. The law of January 31, 1839, did not attempt this equalization; the law of February 3, 1840, made such attempt and so did later laws. The law of February 10, 1852, even sought to convert the sixteenth section funds from local to general State funds. It provided for a general election to be held in August, 1853, to decide "whether the sixteenth section fund belonging to the several townships in this State shall be consolidated or not." But it was provided also that no subsequent legislature should be authorized by this act "to consolidate or put into a common fund the amount that may belong to any township that shall vote against consolidation."

In this connection the comptroller made a report to the assembly of 1853 in which he gave a detailed statement of the condition of the sixteenth section lands by counties and townships. A senate report (Montgomery, 1853, p. 36) in summarizing the "Report of the Comptroller of Public Accounts showing the sixteenth sections sold in the several counties in the State, and the amount for which each sold," pointed out that there were 1,572 townships, and, assuming that each had a full sixteenth section, there were 1,006,080 acres of school lands. Of these lands there had been sold up to that time by 873 townships 558,720 acres, for \$1,575,598. Of this sum, \$1,183,302 had been paid—

to the State bank and branches and to the treasurer of the State at different times, and the larger portion thereof has been funded, and certificates of stock have been delivered to the respective townships for their quota of the cash so paid in.

There was then on hand in notes \$392,296 belonging to the townships.

Six hundred and ninety-nine townships had not reported the sale of land "and have neither a cash capital nor notes on hand," leaving 447,460 acres of land which were supposed to be worth about one-third of the lands already sold. The committee was of the opinion, however, that some of these townships "have made sale of their

lands and have neglected to make a return of the notes or the money for which the same was sold."

This report to the senate was signed by J. P. Frazier, who makes another report to the senate on the vote in August, 1853, on the question of consolidating the sixteenth section funds. It was found that 852 had voted for consolidation, 264 against it, and 456 did not vote. Of the townships voting, it was found that 199 had \$123,541 worth of school lands, or an average of \$617.90. From this it was assumed that the 852 owned \$526,280 worth. The committee then continues:

The act, under the provision of which these elections were held, provides that nothing therein contained shall authorize a consolidation of the funds of any township voting against it. It seems to the committee that a consolidation of the funds of the 852 townships voting for consolidation could effect but little good, even if such a measure was in itself right and proper,

for the average interest due to the township would be only about \$49. The committee then proceeded to argue that, under the act of Congress, consolidation could not be legally accomplished, and nothing was done.¹

In January, 1850, the indebtedness of the State to the school fund was placed by a legislative committee at \$995,220.97 and the interest given as \$59,713.26, or 6 per cent.² In 1851 the treasurer reported the "interest on the common school fund" as \$103,640.43 (which included the interest on the surplus revenue of \$669,086.78 at 8 per cent). In that year it was said "only six States of the Union have at this day a larger school fund than Alabama possesses." The principal of this sixteenth section school fund, as it was in the forties had been lost with the failure of the State bank, but since the certificates representing the sums of school money thus invested in the bank stock were guaranteed by the State, they became a permanent charge on the whole State, the principal being a paper fund only.

There was also the greatest difficulty in collecting solvent outstanding notes. Of those then belonging to the public school fund the comptroller said in 1851:

The law gives no facilities for the collection of these notes, and the comptroller is unwilling to incur the responsibility of sending them to attorneys in every county in the State for collection. * * * In many cases the proceeds of sales of whole sections are absorbed in expenses, and in some they fall short of paying the expense. * * * It is respectfully suggested that the comptroller be authorized by law to bring suit on all sixteenth section notes. * * * This class of debtors has been greatly favored, and it would really seem that notes that have been running from 10 to 15 years, as many of them have, should now be paid as they fall due.

¹ See the committee reports, Montgomery, 1853.

² In 1848 the income of the sixteenth section fund was estimated at \$90,000. This evidently included also the Surplus Revenue fund.

As has been shown already, the assembly had given many extensions on these notes or allowed the parties after they had exploited the lands to throw them up altogether.

In 1854 the management of the school fund was transferred from the State comptroller to the new State superintendent. There were then still more than \$100,000 in claims under control of the banks, and \$300,000 in notes due the fund was in the hands of the superintendent. Repeated extensions of these notes was said to be still the rule, and many of them for one reason or another, or for no reason, were never collected.¹ And, although there were more or less steady additions to this fund, coming from lands sold and notes paid, the actual cash was covered into the State treasury and went for miscellaneous expenses. If it was then the purpose of the State to create a permanent State educational school fund based on cash or its representatives, the neglect and mismanagement which that fund encountered is noteworthy. Says Supt. Duval, in his report for 1858:

The "Educational Fund" is apparently composed of sums credited to the various funds above enumerated.² In reality these funds have no existence; they are tangible neither to feeling nor to sight; they are legal fictions, having names and "local habitations" only on the books of the different State officers where such accounts are kept. Long since they disappeared from the treasury vaults and went glimmering into the dismal abyss of "State debt." Every dollar of the "Educational Fund," except the payments which are now being made upon the sales of school lands, is raised directly by taxation, and is by no means the result of prudent investment by sagacious financiers.

It appears from the reports of the State bank officials and of the auditor that practically all of the sixteenth-section fund accumulated prior to 1851, together with the whole of the Surplus Revenue of 1836, had been lost;³ that these sums, speaking generally, represent about one-half of the present total of the fund; that the sums collected since 1851 on account of sixteenth-section lands and valueless sixteenth sections have been used for miscellaneous expenses; and that they have perhaps for the most part brought a fair return to the State.

The policy of using the principal for miscellaneous needs, instead of building up with it a true school fund based on interest-bearing securities, did not go without criticism. The sharpest criticism and clearest reasoning to be found on the subject is in the report of

¹ As late as 1858 the superintendent was demanding from the banks "all books, documents, or notes, or other evidence of debt relating to the sixteenth section fund," as provided in the act of February 6, 1858. The legislature had also placed on the superintendent the duty of organizing the school for the deaf and dumb. And while duties were increasing, the available help in his office was so limited that the tendency was for him to become a mere head clerk in his own office, and as his letter books show, attending to the petty details of land sales, payment of notes, and the giving of titles, instead of being able to study the question of education in its broader and wider relations to the State as a whole.

² The fund created by the law of February 15, 1854, and called the "Educational Fund," included the (1) sixteenth section fund, (2) the valueless sixteenth section fund, and (3) the United States Surplus Revenue fund of 1836.

³ The Surplus Revenue of 1836 was a State, not a township, fund.

R. M. Reynolds, auditor, for 1869. After quoting the law of March, 1827, which provides for the sale of the school lands, he summarizes the sums received as follows:

Received prior to December 1, 1860:

Sixteenth-section fund	\$1, 499, 343. 83
Valueless sixteenth-section fund.....	97, 091. 21
University fund	300, 000. 00

Total.....	1, 896, 435. 04
Received Dec. 1, 1860, to Dec. 1, 1867.....	310, 794. 12

2, 207, 229. 16

Received since Dec. 1, 1867.....	209. 75
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Aggregate.....¹ 2, 207, 438. 91

Auditor Reynolds then proceeds:

The inquiry is very properly made, "What has the State, as trustee, done with this money?" Has it been invested in some productive fund?

No vestige of it can be found in this office of any value whatever, whether in bonds, stocks, bills receivable, buildings, or other property; and the only answer which is found of late record is that "it is held in trust by the State for school purposes." * * *

To the proposition that it is "held in trust by the State," I would say that this can not be the fact, as it is impossible for the State "to hold in trust" what does not exist. This fund is not in *esse* and can not be held in trust by any trustee. It is lost or misapplied, and this compels the further statement above referred to, that "it is assumed" or "held in perpetuity by the State." By what right does the State assume it in perpetuity; certainly not by statute, which provides that it shall be "invested in some productive fund."

If this assumption "in perpetuity" by the State has any significance, it must mean that the money has been lost or misapplied, and the State has been driven to the necessity of either accepting the amount as a debt or repudiating the trust reposed in her. She very properly admits the application of the fund, and says by statute, "I will assume it as a debt and pay interest upon it till the debt is discharged."

Can this fund be, by right or sound policy, assumed in perpetuity? I answer by saying that the State should assume no such right, although she may have, by a technicality of law, the privilege of so doing, for, in my judgment, so long as this state of affairs continues, she does virtually repudiate the trust reposed in her, by compelling the people of the State, who are, by law, the beneficiaries of this fund, to pay as a tax or debt that which they should receive as a bonus or gift for themselves and their children for school purposes forever.

A little reflection will satisfy the most superficial thinker that this fund has been misapplied or lost by the bad management of the trustees. It has been so used that the very object for which it was donated to the people of the State and of the several townships has been entirely frustrated and defeated. What was intended as a bonus has become a burden. What was to have been an annual gift has become a debt—to be paid by direct taxation.

If the theory that this trust fund should be "assumed in perpetuity" be correct, and that the "principal shall never be paid," as is claimed in grave State papers upon the subject, then, indeed, it becomes a source of profound thankfulness that the United States Government devoted so small a sum as \$2,107,438.91 [*sic*] for educational purposes, as provision can be made by law for the payment of 8 per cent upon that amount by a direct annual tax of \$168,595.11 upon the people of the State. If, instead of this

¹ Auditor's figures are \$2,107,438.91.

amount, the United States Government had given us the munificent sum of \$50,000,000 for educational purposes the people of the State, under the theory and practice of "assumption of this fund in perpetuity," would now be taxed for school purposes alone the full sum of \$4,000,000 annually. The greater the beneficence of the General Government, the more dire the calamity to the people, and the more terrible their taxation.

We should then present the anomaly, rarely if ever witnessed in history, of a people driven to the verge of bankruptcy by becoming the recipients of most princely donations, given by a beneficent government. It is, to me, a matter of astonishment that such theory should be deemed correct by any one conversant with the laws which govern the management of trust funds, and define their relation to *cestui que trusts*. I fully concur in the following statement of Mr. Joel Riggs, the comptroller of the State treasury in 1851: "Perhaps of all trust funds none has been so greatly mismanaged as the school fund of Alabama."

Until the money due this fund is placed where it will not require a direct levy of tax for annual interest upon the people, who are the beneficiaries thereof, it can not be called in any just sense a "school fund," but it is as clearly a debt as any other portion of her obligations. * * *

Believing that the State is solemnly bound to discharge the trust imposed in her, in relation to this fund, as before stated, I most earnestly recommend that, by action of the general assembly, such laws shall be passed as will, in their execution, restore this fund to the condition indicated by statute.

In his report for 1870 the auditor illustrated the method of procedure in re the sixteenth section lands:

You will pardon me, however, for referring to one transaction in the matter of the sixteenth section fund which occurred during the last year, as it affords all the elements of a demonstration as to the bad policy of absorbing United States trust funds given for the benefit of schools. The lands situated in Nebraska belonging to townships 5 and 6, range 1, 2, and 3, east, in Alabama, were by provision of law sold for the benefit of the children of those townships. The United States provides that the money accruing from the sale of such land should be "invested in some productive fund, the proceeds of which shall be forever applied for the use and support of schools within the several townships, * * * for which they were originally reserved and set apart, and for no other purpose whatsoever." See act approved March 2, 1827. These lands were sold for nearly \$20,000 and the proceeds of the sale under the provisions of laws as now in force were placed in the treasury by certificate from this office, when the State became liable for the money, and interest thereon, and unless the policy is changed by repeal of the laws now in force the people of the State will be taxed to the amount of nearly \$1,600 annual interest.

By this one act the debt of the State was increased nearly \$20,000. Had this amount been invested in United States securities or outstanding State bonds the people would not have been compelled to pay larger tax on account of interest upon the educational fund. The taxpayers of the State, outside of those townships, had no interest in the proceeds of the sale of said lands, and it would have been fortunate for all the taxpayers if the money had never been placed in the State treasury.¹

Mr. Reynolds recommended retrenchment in educational matters in his reports for 1870, 1871, and 1872, as follows:

(1) Relief from payment of interest on trust funds hereafter collected by requiring them to be funded in United States or other bonds.

(2) Relief from perpetual payment of interest on the trust funds and bonded debt of the State by the creation of a sinking fund.

¹ Report 1870, pp. 4-5.

The reasoning of the auditor was perhaps sound, but he failed to recognize that the funds lost in the failure of the State bank had been previously taken over by the State and administered as a part of the capital of the State bank under a State guarantee. The State had borrowed these sums from the township and gone into a business which failed. All sense of justice would demand that the State make good the loss, even at the expense of the poorer townships. As to the sums received from year to year, if they were spent in good faith, they did not go into the pockets of individuals; they were not frittered away, but secured for the State a proper return and so became a just debt. For the time, at least, they reduced taxation, and if spent in State undertakings of a permanent character, like roads, buildings, or schools, presumably produced an income, tangible or intangible, which justified their use. And, finally, since the main source of income of a State is taxation on the property of its citizens, a sinking fund could be created only by increasing taxes or by devoting to this purpose other funds the direction of whose earning power must be changed.

The assembly saw the difficulty which Mr. Reynolds did not appreciate, and chose as the less of two evils to continue for 12 years longer the method then in vogue. By act of March 1, 1881,¹ the assembly provided that the State treasurer should invest all money received by him on account of compromising and settling old claims, "together with all other money hereafter paid in on account of the sixteenth section lands in the 6 per cent or other bonds of this State." In this way the beginnings of a real school fund were laid. This fund appears from time to time for the next 10 years in the reports of the auditor and treasurer. In 1883-84 there was \$34,100 ready for investment, and in 1885 it was reported that 79 State bonds of \$500 each, bearing interest at 6 per cent, had been bought by the school authorities on account of this fund. The arrangement did not give satisfaction, however, and under a law passed February 28, 1889, these bonds were sold, the money received was covered into the treasury, the idea of building up a perpetual fund abandoned, and a return was made to the earlier custom of issuing certificates to the townships to which the funds belonged and counting the money received as a part of the general resources of the State. Alabama has not believed in building up a school fund for posterity. It has reasoned that as a matter of natural development the citizens of 1870 would be less prepared to educate their children than would those of 1910; therefore the greater progress would be made by using all funds as they became available.

¹ Laws of 1881, p. 25.

So unsatisfactory did the general land situation become by 1899¹ that an act was passed authorizing the governor to employ an—

agent for the purpose of examining into the sale and disposition heretofore made of school or other lands belonging to the State, with a view of recovering to the State lands which have illegally passed out of the possession and of settling or straightening out titles now in dispute.

By act of April, 1911, section 895 of the Code was amended so as to extend and broaden the powers of this State land agent. Besides the investigations already undertaken, he was authorized to grant rights of way, easements, etc.

The present agent is Hon. W. J. Martin; with the State superintendent and the State board of compromise he is working along the lines of the original act—

to recover for the State those sixteenth section lands which, according to the records in the land office, still belong to the State as school lands, although occupied and claimed in many instances by others.

Says the State superintendent, in his reports for 1911-12 and 1912-13:

It is not improbable that many thousands of acres * * * during the past 50 years have been lost to the State through a policy pursued in such matters less vigorously than the interests in hand made necessary. * * * An aroused public interest is now manifest on this subject, more pronounced, perhaps, and offering a brighter prospect for a clearing of the situation than at any time in the past.²

With this purpose in view, suit was brought to recover title to some 250,000 acres of school lands on the ground that the lands "still belonged to the State, if the defendant had not got a title by adverse possession." It was also agreed that the defendant had such title if the statutes of Alabama limiting suits like this to 20 years were valid. The Alabama trial court ruled that the statutes were valid. The State supreme court declared that the agreed statement of facts raised the single question whether adverse possession of sixteenth section school lands under the code of 1896, section 2794, and its predecessors, "was operative to invest title in an adverse holder of such lands under color of title" and affirmed the decision of the lower court.³ The case was then appealed to the supreme court of the United States and came up as the State of Alabama, plaintiff in error, *v. Schmidt*.

It was argued by representatives for the State that a State statute of limitations, whereby lands granted by the United States to a specific use are diverted from the use into private ownership, is in conflict with the act of Congress making the grant, and void.

The lawyers for the defendant in error argued that "adverse possession against any party in which title is so vested that such party may

¹ Law of Feb. 23, 1899.

² Superintendent's report, 1911-12, pp. 42-43. Same statements in report for 1912-13, pp. 75-76.

³ Reported in 180 Alabama Reports, 374.

grant an indefeasible estate in fee simple ripens into a fee simple title by the operation of the statute of limitations."

In its opinion handed down on January 26, 1914,¹ the supreme court of the United States affirmed the decision of the State supreme court:

The above-mentioned act of Congress, under which Alabama became a State, provided that section 16 in every township "shall be granted to the inhabitants of such township for the use of schools." Of course the State must admit, as it expressly agreed, that these words vested the legal title in it, since it relies upon them for recovering in the present case. Any other interpretation hardly would be reasonable. * * * The argument for the plaintiff in error relies mainly upon *Northern Pacific Ry. Co. v. Townsend* (190 U. S., 267). * * * But it does not apply to a gift to a State for a public purpose of which that State is the sole guardian and minister. * * * It was held that the State of Michigan could sell its school lands without the consent of Congress, *Cooper v. Roberts* (18 How., 173), * * * qualified permission to sell was given to Alabama by a much later act of March 2, 1827. * * * The gift to the State is absolute, although, no doubt, as said in *Cooper v. Roberts*, * * * "there is a sacred obligation imposed on its public faith." But that obligation is honorary * * * and even in honor would not be broken by a sale and substitution of a fund, as in that case; a course, we believe, that has not been uncommon among the States. * * * The result of *Cooper v. Roberts* and of what we have said is that the State had authority to subject this land in its hands to the ordinary incidents of other titles in the State and that the judgment must be affirmed.

The annual receipts from this source are now small—usually not over a few thousand dollars—and come mainly from the School Indemnity Lands.² It would seem to make little difference whether the State uses this principal for running expenses and pays the interest on it by a tax collected directly or invests it in bonds and collects running expenses through taxes. It seems to be merely a matter of the point of view. In either case the taxes must be paid, and the school authorities have been consistent in their efforts to make up to the poorer counties out of the general fund what comes to the richer ones out of their sixteenth section funds. The law for the distribution of public funds in effect to-day is essentially the same as that evolved by Gen. Perry in 1854. The present law provides that:

In making the apportionment of school money to the several districts, the superintendent of education shall first set apart to each township or other school district the amount due from the State thereto as interest on its sixteenth section fund or other trust fund held by the State, and all townships or school districts having an income from such source or from the lease or sale of sixteenth section lands shall not receive anything out of the balance of the educational fund to be apportioned until all other townships or school districts shall have received from the general fund such amount as will give them an equal per capita apportionment with the townships or districts having such income.³

¹ Reported in 232 United States Reports, 168.

² These are lands "which have been heretofore or may hereafter be certified to the State for the use and benefit of the several townships or districts in which was a deficiency in the amount of land originally certified to the State for their benefit." See school laws of 1911, sec. 1782. Income from the indemnity lands is first mentioned by the auditor in 1899. For 1912-13 the additions to the fund were \$25,571.23.

³ Law of 1911, sec. 1764, p. 43.

The total result, then, of the retention of the fiction of a paper fund derived from the sixteenth section lands, the payment of interest on this fund out of taxes, and the method of distribution required by the law, by and large, is a straight tax for schools distributed on the basis of school population, with a few townships as yet getting something more than the average per capita appropriation, but none getting less.

As the fund available for education from taxation increases, the per capita apportionment will grow, and this slight difference between the township with the larger sixteenth-section fund and the average township will tend to disappear. When this has been accomplished the whole paper fund theory may be abandoned as so much worthless lumber. Its abandonment before that date would be an ill reward to those townships which by careful administration or otherwise have been able to turn over actual cash for the use of the State.

It will be of interest to note where the best school lands lay and the amount of principal (all paper) owned by each of the counties on November 1, 1851, and October 1, 1912. At the latter date the school indemnity lands are included in the total.

Principal of the Sixteenth-Section School Fund.

Counties.	Nov. 1, 1851.	Oct. 1, 1912.	Counties.	Nov. 1, 1851.	Oct. 1, 1912.
Antauga.....	\$35,989.07	\$30,038.75	Henry.....	\$4,419.02	\$17,126.93
Baldwin.....		54,825.00	Houston.....		10,471.86
Barbour.....	15,225.30	33,849.23	Jackson.....	5,388.96	65,362.83
Benton (now Calhoun)	21,640.71	32,544.76	Jefferson.....	12,299.58	48,223.69
Bibb.....	11,916.79	18,202.90	Lamar.....		9,086.62
Blount.....	2,901.41	10,384.95	Lauderdale.....	13,143.26	23,859.47
Bullock.....		35,053.39	Lawrence.....	51,236.39	68,440.61
Butler.....	18,304.09	21,738.94	Lee.....		50,094.10
Chambers.....	44,238.07	30,905.85	Limestone.....	45,391.31	51,274.11
Cherokee.....	7,113.29	22,062.07	Lowndes.....	41,024.95	58,741.05
Chilton.....		17,835.57	Macon.....	34,003.35	30,346.85
Choctaw.....	2,258.19	35,069.75	Madison.....	68,103.02	121,942.16
Clarke.....	7,632.42	36,916.68	Marengo.....	21,006.49	80,592.35
Clay.....		13,428.57	Marion.....	2,501.08	10,401.68
Cleburne.....		6,991.09	Marshall.....	2,278.71	19,561.12
Coffee.....	251.48	10,140.23	Mobile.....		3,819.99
Colbert.....		6,114.35	Monroe.....	3,748.37	34,468.02
Conecuh.....	12,221.63	20,889.39	Montgomery.....	59,915.21	78,481.29
Coosa.....	11,465.10	12,390.98	Morgan.....	24,086.07	32,979.58
Covington.....	115.10	19,353.03	Perry.....	46,727.39	82,406.83
Crenshaw.....		10,928.87	Pickens.....	41,204.59	59,859.31
Cullman.....		3,503.76	Pike.....	7,390.35	14,286.91
Dale.....	3,481.72	5,791.27	Randolph.....	2,750.61	4,897.70
Dallas.....	81,395.09	112,273.19	Russell.....	33,917.83	49,553.00
De Kalb.....	3,806.57	14,986.18	St. Clair.....	1,224.67	6,629.89
Elmore.....		28,289.57	Shelby.....	11,351.79	25,401.54
Escambia.....		8,737.28	Sumter.....	66,126.90	120,921.47
Etowah.....		15,862.98	Talladega.....	11,943.89	24,201.17
Fayette.....	7,928.31	8,951.28	Tallahassee.....	9,963.46	18,108.37
Franklin.....	23,734.21	20,752.26	Tuscaloosa.....	39,388.17	43,263.16
Geneva.....		11,895.45	Walker.....	2,011.34	9,476.10
Greene.....	67,161.15	64,286.21	Washington.....	771.40	39,914.62
Hancock (now Win-		4,287.50	Wilcox.....	30,509.18	55,692.16
ston).....		63,027.81			
Hale.....			Total.....	1,075,807.64	2,191,200.85

The principal of the sixteenth section fund on October 1, 1914, amounted to \$2,098,557; the school indemnity fund amounted to \$158,065; total, \$2,256,622.

Chapter IV.

THE RISE OF PUBLIC SCHOOLS IN MOBILE, 1826-1865.

The course of educational development in Alabama is from the local to the general, from the city to the State, and for this reason the history of the Mobile schools is put first, since they furnished an example and a standard for the State.

The germ of the Mobile system is to be found in the act of January 10, 1826, by which there was created a board of "school commissioners" for the county of Mobile, in which the city of Mobile is situated. These commissioners were given full power—

to establish and regulate schools, and to devise, put in force and execute such plans and devices for the increase of knowledge, educating youth and promoting the cause of learning in said county, as to them may appear expedient.

This was the first school act passed by State authority that saw in education public duty rather than private enterprise. It was the first to attempt the realization of public duty by providing certain definite, fixed, and more or less reliable sources of income. These were:

(1) All lands, grants, and immunities already conferred or that might be conferred by the State or the United States upon the inhabitants of the county, or any organized part of it, for the purposes of education.

(2) The fines, penalties, and forfeitures arising under the act "concerning the revenue of Mobile County," passed December 25, 1824, and including a 2 per cent tax on auction sales of real estate, slaves, live stock, etc., and a license tax on shows, theaters, and similar amusements.

(3) A tax fee of \$2 on suits in the circuit and county courts.

(4) Twenty-five per cent of the "ordinary county tax."

The act of incorporation also allowed the school commissioners to select the equivalent of a sixteenth section of the public land, while supplementary acts of 1827 and 1829 provided for a closer collection and more careful accounting for these various funds, and granted permission to raise \$25,000 by lottery "in aid of the fund for the support of schools in said county." An act of December 19, 1836, increased the amount to be thus raised to \$50,000 and devoted it to the completion of what became known as Barton Academy. This act made minor changes in the matter of revenue and increased the

total county tax by providing that the school tax should be derived from a separate levy equal to "one-quarter of the county tax." It required also that public schools be established and maintained throughout Mobile County beyond the limits of the city of Mobile. In the meantime the square on which Barton Academy was later erected was secured (1830) and much of the money for building was raised by Henry Hitchcock. Silas Dinsmore was another supporter. The academy building was named for Willoughby Barton, who drew the original bill passed on January 10, 1826, creating the board of school commissioners for Mobile County.¹

For a quarter of a century from the time of the first act there were numerous supplementary laws changing the details of administration. An act in 1840 ordered the erection of suitable buildings in each ward as soon as the "school fund on hand may be sufficient"; another, of 1843, revised the personnel of the school board, made them a close corporation with the power of choosing their successors, ordered the payment of the debts of the old board out of the school funds and declared "the plain intent and meaning" of the act to be that the commissioners should "expend their funds in providing competent and suitable teachers."

Under these favorable auspices the public school system of Mobile City and County, independent of the rest of the State, fairly well provided with funds and sufficient unto itself, was launched. It was to be expected from this recital of its opportunities and resources that the system would have sprung full-grown into the educational arena. Unlike most of the institutions of the day, the system was, in reality as well as in name, a child of the city, and it would seem that its commissioners had nothing to do but organize schools that would, in the main at least, look toward modern ideas. The commissioners seemed to have had it in their power to become the protagonists of public school education in the Southern States, but they did not know their day; they failed to take the rising tide that might have led to educational fortune. Instead of leading, for the quarter of a century between 1826 and 1851 the school commissioners did practically nothing toward organizing and opening schools of their own, but distributed the public funds equitably among the different parochial schools.² The funds thus distributed were, however, too small to pay any considerable part of the expense of these private schools, and for that reason the school commissioners neither had nor sought to have any control over the teachers or schools, and they did

¹ Hamilton, *Mobile of the Five Flags*, p. 254.

² This situation may be illustrated by the law of Feb. 4, 1846, which provided that the Methodist in Mobile might say when he paid his school tax whether his tax should go to the school of that denomination, and, if so, to say also under what conditions children of other denominations might be admitted to the Methodist school without charge for tuition.

little more than act as agents for the collection of public funds to be applied to the use of private schools.

In 1851-52 the amount thus distributed amounted to \$5,550, divided as follows: Methodist parish school, \$1,200; Bethel schools, \$1,300; Catholic schools, \$1,200; Trinity schools, \$500; various schools in the county, \$1,350. These sums may perhaps be taken as about the average amount distributed from year to year.

This state of affairs became unsatisfactory to all. The Barton Academy building was not used by the school board, but was rented for private schools and other purposes. It was supposed to be worth \$40,000, but its income was not over \$1,000 per year, and it was proposed in 1851 to sell the building, reinvest the proceeds to better advantage, and so increase the sum available for distribution to parochial schools. An act passed February 9, 1852, after providing that applicants for teachers' positions should furnish a "certificate of competency," gave permission for the sale of the academy building, if the people so desired. At once two parties sprang up; one insisted on the sale and maintenance of affairs as they then were. The other demanded that the Barton Academy building should be used for public schools, as had been the original intention, and that public schools should be maintained in reality and not in theory only.

In the Mobile Daily Advertiser for July, 1852, Gen. Walter Smith argued that the Barton Academy was not then and never could be useful for the conduct of the public schools which were intended to give "to all the children of the community, without distinction, a thorough common-school education (and no more)." For this purpose "several plain, substantial schoolhouses in different parts of the city would better serve than Barton Academy," for high schools, he argued, can not and never should be regarded as a part of the public school system; that this building might be sold for \$30,000, which would produce an annual income of \$2,400, to go immediately into school work.

Gen. Smith's argument was met through the columns of the Advertiser by K. B. Sewall, who showed a much clearer and more advanced conception of the scope of the public school system. In other States, he said, the system was threefold: (1) Primary schools; (2) grammar schools; (3) high schools; that these three parts made up the public school system. The Barton Academy property had cost at least \$100,000 and was now free from debt, and its sale, even with the idea of erecting other buildings, was unwise.

It was also insinuated that the act permitting the sale had been engineered through the legislature after it was known that the people were against it. The proposition to sell had created, so the Advertiser said editorially the day before the election, "a storm of indignation such as has been rarely witnessed in this community."

The Advertiser said further:

The plan of selling the Barton property having been once entertained, despite all the difficulties in the way, was prosecuted by some of our citizens with a zeal and held to with a pertinacity that, had it been wisely directed to perfecting and putting in operation a judicious system of schools, would, we must think, have resulted much more beneficially to the cause of education in our city and county.

The election was held August 2, 1852, and the "no sale" tickets won by a vote of 2,225 to 244. A new board of commissioners was chosen on the "no sale" ticket, with whom were joined four members of the old board. They set to work to alter and repair Barton Academy and adapt it to the needs of the new system. A committee was appointed to consider and report on the best plan for organizing the schools, and their report was accepted on September 16, 1852. The resources of the board for the previous year were about \$6,000, including rent for Barton Academy. This sum was now reduced by \$1,000, and out of the remainder some old appropriations had to be met. But notwithstanding these discouragements, the school was opened November 1, 1852. On the opening day there were 400 pupils; on February 1, 1853, the attendance stood: High school, 109; grammar school, 209; primary, 536; total, 854. For a time tuition fees were collected "in all the schools"—the amount not specified. The system was again passed on by the county electors in 1853, and approved by a vote of 1,597 to 869.

In the summer of 1853, Mr. Willis G. Clark, chairman of the commissioners, visited the schools of other cities, studied their systems, and made a report. In 1854 the system was carefully examined, modified, and improved in the light of experience. The commissioners had served without pay, the work had increased, and it was now desired to extend the system beyond the city limits. A city superintendent was therefore appointed, and the city and county were divided into school districts. The receipts and expenditures for the years 1852-53 and 1853-54 were as follows:

Receipts:

Licenses, auction duties, and taxes.....	\$17, 658. 21
Tuition.....	10, 889. 81
Donations, Samaritan Society.....	300. 00
Total.....	<u>28, 848. 02</u>

Disbursements:

For country schools.....	2, 158. 61
Balance appropriation old board for parochial schools.....	1, 050. 00
City branch schools.....	642. 51
Teachers.....	21, 802. 51
Repairs, painting, salaries of officers, and incidentals.....	6, 775. 05
Total.....	<u>32, 428. 68</u>

It appears, therefore, that the average expenditures per year were \$14,424.01 and the disbursements \$16,209.34. The deficit for the two years was met on the personal credit of members of the board.

The detailed report showed that the income from tuition was greater than that from taxes and that the former was therefore necessary for the stability and development of the schools. The rates charged, moreover, were lower than those charged at private schools and—

as permits to attend the schools without charge were freely given to all pupils whose parents were unable to pay tuition for them, the means of acquiring a good education was brought, for the first time in Mobile, or Alabama, within reach of all classes in the community.

It would appear from this extract from the history of the Mobile public schools, written by a member of the original board, that an efficient school system, without any tuition charges, was at that time an impossibility; that the schools then organized were far superior to any that had hitherto existed in Alabama; that free tuition was granted as a favor to the poor; that other patrons were required to pay for tuition, and that therefore the schools were not public schools in our sense. But it is evident that the persons interested in this system were making an honest and conscientious attempt to supply the children of Mobile County with a school system which had public support as its ultimate goal, and it is also stated that they attained so high a character that they were patronized even by the rich in preference to the best private schools in the city.

The third session showed an enrollment of 1,012 pupils. Laws passed in 1854 enlarged the powers of the commissioners, increased their resources, and forbade that any part of their funds should be used for the support of sectarian schools. In 1855 the enemies of the system gathered their forces for a final struggle, were again defeated, and in October of that year an institute for the instruction of teachers was organized. The act of February 15, 1856, greatly promoted the development of the system, by providing that certain licenses should go to the schools and by granting an annual tax "not exceeding one-twentieth of 1 per cent" upon the real and personal property of the county. This act was passed by an almost unanimous vote.

The compliment had been paid the Mobile schools of exempting them from the conditions of the general State law of 1854. This local autonomy gave them an independence of action and power of taxation not enjoyed elsewhere in the State, and so has opened to them the path of progressive educational development as yet denied by constitutional limitations to other sections of the State.

The expenses for the school year ending July 31, 1856, were \$21,899.23. The tuition fees collected were \$14,712.80, and the total income was some \$4,000 less than the expenditures. A school census

taken in the fall of that year showed 3,620 school children within the city limits and 2,300 beyond, making 5,920 in the county.

Under the action of the law of February 15, 1856, the income of the schools increased. The income and expenditures for the next three years may be tabulated as follows:

Income and expenditures of the Mobile schools.

Year ending—	Income.	Expenditures.
July 31, 1857.....	\$37,068.25	\$38,185.30
July 31, 1858.....	44,035.03	45,232.18
July 31, 1859.....	46,681.51	46,937.35

These figures indicate a steady, healthy growth, with an ever-decreasing margin of the excess of expenditures over income.

The reports on attendance are not so favorable. In October, 1858, there was reported 4,314 city and 2,195 country children. The enrollment in the city schools on March 31, 1859, was 1,533, or 35.5 per cent; the average daily attendance was 1,240, or 28.8 per cent.

In 1859 the school commissioners took a step backward by deciding to abolish the office of school superintendent. This caused the opposition again to rally against the schools, but they failed, and the schools were strengthened by the trials through which they passed.

Until the war was in actual progress, the schools were very prosperous; as income increased, tuition charges were reduced and the free list extended, so that, had no interruption occurred in this course of development, Mobile would have evolved from schools partly supported by tuition fees and partly free to a system that would have been supported entirely by taxation and wholly free, and thus the stigma of pauper schools would have disappeared automatically.

The schools were kept in operation during the days of the war, although with diminished attendance. They were closed in 1865, on the occupation of the city by the Federal forces under Gen. Granger. They were reorganized and reopened in the fall of that year, and a broader field of usefulness was developing for them when reconstruction came. During the throes of reconstruction, the school commissioners suffered imprisonment rather than obey an illegal order, and in 1869 had their special privilege of a separate system abolished, being absorbed into the State organization. In 1875 the status of the earlier period was restored and has since been maintained, under the protecting ægis of the constitution itself.

Chapter V.

THE EXPERIMENTAL PERIOD IN THE ORGANIZATION OF A STATE SYSTEM, 1819-1854.

Turning from the city to the State, from local to general educational efforts, it is seen that the period prior to 1854 was distinctly empirical. There was in it little besides a few legal provisions that probably never lived beyond the statute books; and the few efforts made for schools were mainly tentative, for the people were learning school keeping in the school of experience.

The first law to consider the actual organization of schools was the act of December 17, 1819, which provided that the county agents be empowered to contract with "a teacher or teachers and for a school house or houses when and wheresoever they may think proper." The agents were made school trustees and given powers of superintendence and "the proceeds of each section" were to be applied "to the purposes of education alone." There is no record that this law produced any particular effect.

The law of January 1, 1823, was more detailed and specific. It provided that the people were to elect three district school trustees who were to employ teachers "at an annual salary or at a stated price for each scholar," build schoolhouses, "purchase books and stationery for the use of the school," and "*designate the pupils who shall be admitted to the school without tuition fees.*" The teachers were to be "duly examined" by the school commissioners. The local officers were to report to the county clerks and these to the general assembly, and were to include in their report the number of pupils "educated gratis."

This act furnishes a key to the educational mind of the day as it appeared in Alabama: School lands were leased or sold; schools were free in the old sense, not in our present sense; all might attend, but all were not equal; the poor were received at the expense of the district; others paid for their tuition, and so the school was neither public nor private, but a cross between the two, and the State's bounty went only to the poor.

The law of 1837 provided that district school trustees be elected. They were to manage the schools and report their proceedings to the county clerk, including the condition of the lands and funds, progress

of schools, teachers, etc. The county clerks in their turn were to report to the governor.

Up to this time presumably no money had been actually expended for schools. Certainly there was no workable law, and no statistics of such expenditures are to be had. The first law looking to this phase of the subject is the act of January 31, 1839. This act undertook to make the public-school system participate in the general prosperity of the State and to shape the lines of financial administration. The law directed that the State bank and its branches should provide annually out of their "net profits" the sum of \$150,000 "for the purpose of establishing and aiding in the establishment of schools." It directed further that on demand from the township trustees the bank should pay to the township as much, up to a limit of \$200 and including whatever sum might have been earned by its own sixteenth-section funds, as the people had subscribed in the previous year. All of this money was to be used in paying for the tuition afforded in the previous year. If there were two or more schools in the same district, the money was to be divided between them "in proportion to the number of regular students at each school," but no citizen was to be entitled "to an amount exceeding the amount by him actually subscribed;" if there were indigent persons who wished to send their children to the school, but were too poor to subscribe, they were reported by the commissioners and listed as subscribing \$10 each. The total so subscribed was not to exceed \$100. A part of the State fund equaling these poor subscriptions was to be used exclusively "for the education of the indigent scholars of the township."

By act of February 3, 1840, the amount to be furnished by the State bank was increased from \$150,000 to \$200,000, and the rate of payment was fixed at \$12 per pupil. The total contributed to each township was not to exceed \$400, and this was to include all interest earned by the sixteenth-section lands. An amount equal to one-third of that asked from the State bank was to be collected by private subscriptions and to the commissioners was given the power "to say what scholars shall be educated free from charge."

The laws of 1839 and 1840 evidently assumed that the schools were to be organized on local initiative, that certain sums were to be subscribed and collected and the schools actually taught in advance of any State aid; that the upper classes were to take the lead in these matters and pay tuition for their children. This is also evident from the amount appropriated, for at \$12 per head \$200,000 could educate only about 17,000 pupils, and since in 1840 there were 335,185 white persons in the State, the total school population was not far from 90,000. State activities looked only to the education of the poor.

This situation was greatly modified by the subsequent fortunes of the State bank. As has been shown in chapter 3, by 1842 the bank could no longer meet its obligations, and the requirements of February 3, 1840, were repealed by the act of January 21, 1843.

In the meantime, what about the actual administration of the schools? Among other troubles it was apparently very difficult at this time to differentiate between public and private (which were generally denominational) schools. The question was discussed time and again whether parents might send their children to schools outside the district and still draw their pro rata of school funds. This was decided affirmatively. The repeal and subsequent reaffirmation of the law indicates the interest felt in the matter and would seem to show that private and denominational schools in this way came to receive a part of the public bounty—a view sustained and supported by the act of 1848 which provides that the proper proportion of the public funds might be paid to “any other schools.”¹ It would seem, therefore, that at this time the major part of the public State funds, as in Mobile, probably went to private and denominational schools and that little supervision was or could be exercised.

The census of 1840 reports school statistics for Alabama as follows: Two colleges, with 152 pupils; 114 academies, with 5,018 pupils; and 639 primary schools, with 16,243, making a total of 21,413 pupils, of whom 3,213 were “at public charge.”

Four years later comes a statement on the same subject from State sources which are perhaps more accurate. The “Tabular Statement of Census of Alabama taken in the year 1844” (Tuscaloosa, 1844), page 5, reports:

Number of colleges and high schools.....	7
Students in colleges and high schools.....	626
Academies.....	131
Pupils in academies.....	5, 266
Common schools.....	858
Pupils in common schools.....	21, 982
Total at all schools.....	27, 874

Source material for the educational status of this period is all too small. Educational effort was being made, but the leaders were themselves inexperienced. They were learning by experience; this process was both costly and slow, and little record seems to have been made of their efforts. Of the flush times represented by the full years of 1839 to 1843, when the schools were receiving some \$200,000 out of the income of the banks, only the meager records already quoted seem to exist. The State documents for the period

¹ See also the law of Feb. 3, 1846, which orders the commissioners of a certain school district (Demopolis) “to distribute the annual interest * * * among the several scholars residing therein, whether the said scholars attend the school or schools established by the legal officers of said township, or any other school.”

prior to 1854 which have been available give us little light on the subject, and for definite statistics we must depend on the Federal censuses of 1840 and 1850, incomplete as they are. But it is evident that even then the spirit of education was moving on the face of the waters of ignorance. Public leaders, vaguely conscious of their needs, were groping, blindly, it may be, but nevertheless with hope for better things. This is evident from the message of Gov. Reuben Chapman to the legislature, November 13, 1849, in which he discusses the common schools in general, and agricultural education in particular:

The agricultural interest in this State is believed to exceed in value, and in the number of persons connected with it, all the other industrial pursuits; and while the other interests, so much less important, have been more or less fostered, agriculture has been suffered to languish, until much of our fertile soil has become impoverished and unproductive, from an unskillful and injudicious system of cultivation, and many of our citizens have removed, and others are moving, from this State, in search of new lands to subject to the same ruinous system.

That the lands so worn out can be restored to their original fertility, and the system of cultivation be so improved as to maintain that fertility and increase their capacity for production, the experience of other States leaves no room to doubt. If agriculture is the groundwork of all industrial prosperity, and the strength of a State depends upon the number, as well as the character, of its population, we are all interested in adopting such an improved system in the cultivation of our lands as may increase immeasurably the wealth of our State, and take away from the most useful class of our population all motive for emigration. Nine-tenths of our young men are destined to become tillers of the soil, yet we are without a school in the State where scientific agriculture is taught, when by the establishment of an agricultural school we might raise up among us a class of scientific farmers. Civil engineering and architecture are professions by means of which scientific information is made practical for the benefit of those who have knowledge of the science upon which either is based, and by the practice of which their professors make a respectable living. So scientific agriculture might be made a profession with us, the professors of which, by visiting farms, analyzing their soil, examining their local position, superficial character, etc., might be able to place within the reach of the least enlightened of our agricultural population all the benefits of experimental science, and, in so doing, at the same time, advance their own pecuniary interest.

The best mode that occurs to me for the accomplishment of an object so highly important would be that the legislature should request the board of trustees of the university to establish in that institution a professorship of agriculture, and that connected with it there should be a farm for experiments. The duty of such professor might be to superintend the cultivation of the farm, with the view to determine the best mode of raising the staple and other agricultural products of the State, of protecting them from the attacks of destructive insects, testing the comparative value of the different varieties of seed, and the various modes of resuscitating the worn out lands; to deliver public lectures at stated times, and to publish an agricultural paper, in which might be reported lectures delivered, and the character and result of all experiments made. The benefits that would arise from the establishment of such a department in our university are such, it appears to me, as would authorize the State to make the appropriations necessary to defray the expenses.

The subject of common schools deserves all the consideration and encouragement it is in the power of the general assembly to bestow. The whole theory of our form of Government is based upon the capacity of the people. Without a general diffusion of intelligence among them, the machinery of a Government thus constituted can not be

expected to move on successfully. The highest and most important of all the duties of a free Government is to advance the cause of education, and guard against that decline of liberty which results from neglecting the minds of the people.

Unfortunately for our State, her financial condition will not allow her to do more than to make a faithful application of the fund granted by Congress for that important object. By an act of the last session, State stock for so much of this fund as had been received from the sixteenth sections sold was required to be issued to the townships respectively entitled to it. This has been done, and the interest stipulated upon it has been paid in the mode provided.

It is to be regretted that this fund, which consists in the sixteenth section in each township, has been clogged with such conditions in the grant that the noble end designed can not be accomplished—that is, to provide for the education of that portion of our population who have not other means. The sixteenth sections that are at all valuable are generally in those townships where the white inhabitants are less numerous, and are generally in circumstances not requiring such aid, while the poor sections are generally found in townships where the limited circumstances of the citizens deny their children the opportunities of education from their own means.

If the whole sixteenth section fund could, without a violation of good faith, be brought within the power of the general assembly, I would recommend its exclusive application to the education of those who are without other means.¹

Gov. Chapman was succeeded in office by Henry W. Collier. In his message to the legislature, December 20, 1849, he discussed the common-school system somewhat in detail and outlined a plan of action:

Our plan of common-school education, if indeed we have one, is eminently defective, if for no other reason, because it wants a head to direct its operations, to prescribe the course of instruction, to receive at least once a year reports of the condition of the township schools—the number of scholars, male and female; the amount paid to teachers from the income of the sixteenth-section fund; the contribution of patrons, etc. Such a modification of our system with other corresponding changes, would infuse into the cause of education generally new life, and in particular elevate primary schools. The standard of education in these is generally far below the wants of the pupils, and it is a patriotic duty resting upon us with great force to endeavor to raise it higher. * * *

No one should be employed as a teacher whose moral character is not unexceptionable, who does not combine amiability with a due degree of sternness, and shall not be found competent upon a satisfactory examination to teach orthography, reading, penmanship, arithmetic, English grammar, modern geography, and the history of the United States. It would be very desirable if his knowledge extended further, so as to give some general instruction to the male scholars upon agriculture and the mechanic arts, and thus fit them for the practical duties of life. * * *

There should also be a director of common schools for each county, and three trustees for each township. The latter should provide for the erection and repair of school-houses when necessary; should endeavor to collect a township library by voluntary contributions, until it shall be deemed expedient to appropriate a fund for the purchase of books; should examine, or cause to be examined, applicants to teach, stipulate their compensation, make settlements with them, etc.

It is not desirable to multiply offices too much, and I therefore suggest that the judges of the county courts in their respective counties should be county directors; they should receive reports from the trustees of the townships. * * *

A superintendent should be a man of energy, benevolence, education, amiable disposition, and strong common sense, wholly untrammelled by other duties. His powers

¹ Message of Gov. Chapman, Montgomery, 1849, pp. 23-25.

should all be enlisted in the business; he should be required to devote a certain portion of his time in endeavoring to awaken an interest in popular education.

That the fund may be productive of the most good to those who really need it, I recommend that it be explicitly provided that only those who are pupils of the teachers employed by the township trustees should receive any portion of it. In some of the townships the income of the fund has been distributed among all the schools within them according to the number of the scholars, often making the benefit too inconsiderable to aid the dependent.¹

But Gov. Collier was ahead of the representatives of the people. The committee of the legislature to whom this message was referred answered in glowing platitudes and expatiated on the necessity of common schools and then regretted that the "heavy public expenditure" could not permit any State contribution "to the enterprise."

As a substitute for a general State system, the committee thought that "a few splendid educational prizes" in the shape of free courses at the university would be quite adequate "to educate a sufficient number of our young men for the useful and honorable profession of teachers to supply the wants of the State." There was the same situation in the assembly of 1851-52. A committee of the house on education, Charles P. Robinson, chairman, made a report in which the whole educational situation was reviewed. The burden of this report was the sixteenth-section funds. This is what was understood by public education, and for that reason the State had failed to respond—

to the demands of the people. Instead of encouraging education by the application of the means which the people have ever been ready to yield [i. e., taxation], legislatures have seemed to consider all education as connected in some way with the sixteenth-section fund.

The committee then presented a tabular statement in which they show that 89 townships received \$32,736.21 from their sixteenth-section funds; 629 others received \$31,912.25, and the remaining 794 townships seem to have received nothing. This unequal state of affairs led the committee to say:

A grant founded in the noble policy of providing a secure and permanent source of education to all who would avail themselves of it has issued in the raising by *general taxation*, annually, the sum of \$64,548.46 [sic]. This sum is applied, in great part, to those counties least in need of this assistance, and what is still more important, in the wealthier portions of such counties. Nor does the evil stop here. It is to be feared, from this inefficient system of the present school laws, that the money is not always applied to the support of free schools in the townships, open and accessible to all the children thereof.

The committee thought that out of the "130,000 children" in the State between 5 and 15 "only between 35,000 and 40,000" were at school during the year. They did not offer a bill for a system of public schools, but brought in one to authorize the governor to appoint a State superintendent at \$3,000 per year. It was to be

¹ Message of Gov. Collier, Dec. 20, 1849, Montgomery, 1849, pp. 33, 34, 35.

his duty to visit the counties, make public addresses, and arouse interest in education. He was to make a census of school children between 5 and 16 and ascertain the number of schools and academies. He was to be a missionary, a voice crying in the wilderness, a guide, philosopher, and friend, and prior to October 1, 1853, was to report to the governor the draft of a bill for a public school system.

The logic of the committee was irrefutable; the superintendent was badly needed, but the bill did not become a law, for the time had not come when the citizens of Alabama could look squarely in the face the problem of taxation for public schools.

It will be noted that through all the discussion there was the idea that the public funds should be devoted exclusively to the education of the poor. The dominant note does not seem to be that of contemptuous concession to those who could not help themselves—the pauper school idea—nor yet the modern idea that the State educates for its own protection and in order to give to each the opportunity for fullest development, but a position between the two. There was a certain consciousness present with the slaveholding element that for the laboring classes the education received in the public schools was the best, and should for that reason be devoted to them in its entirety, not as a dole, nor yet as a right, but as a charity from the more fortunate to those who were less so.

When we consider the amount of income available from these funds; when we remember the deep-rooted hostility to taxation that characterized these people, and their extreme jealousy of anything that looked like centralization of power; when we recall that practically all men in Alabama who thought were able to educate their own children out of their private means, we can better understand the feeling which would devote the public funds to “the education of those who are without other means.” The slaveholder was willing to surrender his proportion of these public funds, not in the sense that he patronized and looked down with contempt on his poorer neighbor, but because, by refusing to share in this fund, by bearing his own educational burdens, he could help the general cause, help the State bear this burden, which the individual most benefited by it was unable to do, and at the same time limit the activity of the State.

All parties were now beginning to look toward the same goal. In his message to the assembly in November, 1851, Gov. Collier had again emphasized his position on education:

Primary school instruction can not be dignified as a system until it has a head to direct and supervise its operations. A superintendent * * * should be appointed by legislative authority. He should traverse the State, address the people, visit and examine schools, and inquire into the qualifications of teachers, as often as a proper attention to his other duties would permit.

Gov. Collier again failed to get what he had recommended, but with 1851-52 the period of legislative empiricism ends. With 1853-54 came new leaders, a new law, and a new awakening. Hitherto the first had been absent, the laws had been ineffective, and the time for the awakening had not yet arrived.

In the meantime what was the actual status of public education in the State and what were the legal requirements in the case?

Under the code of 1852 the duties of the school trustees required them to take the census of children 8 to 21 years of age; to divide the townships into school districts;

to establish in each school district, for at least three months in each year, a school for instruction in the common English branches—reading, writing, arithmetic, spelling, grammar, and geography; and to locate schools, provide schoolhouses, employ teachers, etc.

The total white population of the State in 1850 was 426,514, and we may assume that this represented a school population of over 100,000. The census of 1850 shows:

(1) Five colleges, with 55 teachers and 567 students. These institutions report \$5,900 income from endowment, \$395 from public funds, and \$35,050 from other sources, making \$41,255 in all.

(2) The academies and other schools were 166 in number, with 380 teachers and 8,290 pupils. They reported an income of \$164,165, of which \$4,949 came from public funds.

(3) There were reported 1,152 public schools, with 1,195 teachers, showing that they were nearly all one-teacher schools, with 28,380 pupils. They had a total income of \$315,602, of which \$800 came from taxation, \$56,367 from public funds, and \$2,916 from endowment.

From these figures, apparently compiled from the reports made by the schools themselves, it is seen that there were then 37,237 pupils of all grades in the schools of the State, but when the statistics were gathered by families, it was found that 62,778 pupils had been "attending school during the year." It will probably be safe to assume that the census by schools represented a daily average attendance and the one by families the total enrollment. It will be noted also that the census does not report the length of school term, nor consider the efficiency of teachers. It is probably not far from the truth to assume that while the census figures may be essentially correct there were no real public schools; that the schools which passed under that name were private institutions supplemented by public funds, and that their work when weighed in the balance of specific accomplishment, was not of great importance.

This judgment is based on testimony no less authoritative than that of the State superintendent himself.

Gen. William F. Perry became the first superintendent of public instruction, in 1854. In 1897-98 he published his reminiscences of the condition of the public schools at the time he took charge.¹

He says, in part:

Nothing entitled to the name of a system of education had ever existed. There was a fund amounting at that time to about \$1,000,000, belonging * * * not to the State, but to the individual townships. This fund, so far from being an aid, was really an obstacle in the way of the establishment of a general system of schools. Its uselessness for such a purpose was due to the great inequality of its distribution. There were many hundreds of townships whose school lands were totally valueless; and probably more than half the remainder possessed funds so small as to be practically valueless. There were whole counties whose township funds consolidated would hardly have supported a single decent school. It should be remembered, too, that these sections of the State contained a white population at once the densest and the most needy.

The townships having the largest school endowment were found chiefly in the Tennessee Valley and in the central portion of the State, known as the Black Belt. While it is true that the funds of most of them were legitimately and wisely used, it is also true that they belonged to those who were in least need of aid, and it is equally true that many of the most richly endowed townships were covered with cotton plantations and negro quarters and had no schools at all.

But what had the great mass of the people done for themselves? Left without guidance, encouragement, or any material help from without, what means had they employed, and what facilities had they created for the education of their children?
* * *

The answers * * * are as various as are the conditions which prevailed in different localities. In the towns and villages were generally found school buildings more or less commodious, but rudely and uncomfortably furnished, and defaced by abuse and neglect. The teachers looked to the patronage alone for support * * *

It is painful to recall * * * the wretched provision made for the education of the young in those large areas of the State where the land is unproductive and the people were poor. Hundreds of townships were entirely without a school; and there were whole blocks of counties that could boast of scarcely a single pleasantly located, comfortable schoolhouse. Many that I saw in my travels through the State beggared description. But for the rude benches visible through the cracks, and the broken slates and tattered spelling books scattered around them, any one would have been at a loss to determine for what purpose connected with civilized life they were designed.

It may reasonably be supposed that the character of the instruction received by the children in such places was on a par with their material surroundings. Where there were no township funds, there were no trustees. Any one could get the use of the wretched, makeshift of a house who could secure from parents a sufficient number of pupils, pledged under written articles of agreement * * * It goes without saying that only teachers of a very low grade of qualifications could be obtained. A majority of them, at that time, were men, and in most cases, men who had resorted to teaching because they had proved unfit for anything else.

But Gen. Perry was able to mention at least one pleasing exception to the above picture of general gloom. It is that of a Lancastrian school in perfect working order.

¹ Transactions Alabama Historical Society, vol. 2.

He says:

In rare cases enterprising teachers succeeded in arousing a strong local interest and in building up what might be termed country academies, in which the classics and sciences were taught, and aspiring young men received their preparation for college.

To illustrate the power of personal magnetism and the extent to which even the humblest people can be stirred by the desire for improvement, I can not forbear mentioning a school that I visited, when a youth, among the hills of DeKalb County. A stranger came to the neighborhood and began teaching in a rude schoolhouse. Interest was awakened, and the house was soon filled. Interest grew into enthusiasm, and to accommodate the increasing members, rough sheds, covered with boards, were constructed around the house, and to them were added bush arbors, until the place resembled an old-fashioned religious camp-ground. There were in attendance, I suppose, not less than 150 pupils of all ages, from 6 to 30. The principal occupied the house; each shed was presided over by an assistant; while the arbors were filled with classes in spelling, reading, geography, and simple numbers, which were presided over by their own members, each in his turn assuming the duty of leadership, and going over the entire lesson before surrendering the place to a successor. The utmost ceremony was observed in every change, and each leader, on taking his place, was saluted with profound obeisance by the class. The whole machinery seemed to move with the utmost precision, and no evidence was anywhere visible of idleness, misbehavior, or disorder.

Chapter VI.

THE ORGANIZATION OF THE STATE PUBLIC SCHOOL SYSTEM, 1854-1856.

With the beginning of the sixth decade of the century the public conscience of Alabama—and by this is meant the conscience of a few high-minded leaders among the slave-holding class—was being quickened into a broader conception of duty to the humbler citizenship in a common democracy. These leaders could well afford to educate their own children at private institutions; the poorer citizens could not, and all help for them must come through the State. Therefore, with an unselfishness for which these aristocratic slaveholders have received scant credit, they set to work to organize a system which would educate the children of all freemen. Their misfortune was that, having no experience to guide, they sought information only through empiricism, and they made mistakes which dearly cost them and the people whom they sought to serve. They were hampered by lack of means and scarcity of population, and it is not just to hold up these men, or their system of slavery, as the cause of the failure of schools. In North Carolina the common-school idea had been worked out with a high degree of success before the Civil War. Other States were facing the same problem, each in its own way, and had not the war intervened there is every reason to believe they would have attained, before many years more, a satisfactory solution.

In 1853 the State had a public school fund of more than a million dollars; it had reorganized its sixteenth section fund, had gotten it free from its entangling alliance with the old State bank, and had tried out various plans of its own and found them failures. The ground was fallow, and there was the contagious example of successful schools in Mobile. To the State senate of 1853-54 there came from Lauderdale Robert M. Patton, later governor; and to the house Alexander Beaufort Meek, from Mobile, and Jabez Lamar Monroe Curry, from Talladega. These were the men who made possible the school law of 1853-54. The drafting of the school bill was referred to Judge Meek, chairman of the house committee on education. With his draft went a report in which is reviewed the general educational situation in Alabama.

After discussing the value of education in the abstract and paying the usual meed of praise to progressive New England, Judge Meek

boldly puts forward the establishment of a system of common schools in Alabama not on the ground of favor or charity, but because it represented "not only the highest interest, but the clear right and imperative duty" of the State; there was even in his mind a glimmer of the modern doctrine of self protection: "The property of a State is dependent for protection and safety upon such a system, and should therefore pay for its establishment and maintenance." The doctrine of "protection and safety" is certainly nearer to modern ideas than it is to the older doctrine of charity and paupers.

The difficulty before the committee was how to equalize the very unequal distribution of the sixteenth section fund. Says Judge Meek for the committee:

The inequalities in the distribution of the sixteenth section bounty may be forcibly illustrated by a few facts. The total number of townships in this State is 1,572. Of these, 873 have sold their sixteenth sections, leaving 699 which have not made a sale, from their sections being below the minimum value. Those that were sold embraced 558,720 acres, and brought \$1,575,598. The residue of the sections, if sold, it is estimated, would swell this amount to about \$2,000,000—the munificent donation of the General Government for schools in this State.

From reports heretofore made it appears that the value of the sixteenth sections in the 13 counties of Autauga, Chambers, Dallas, Greene, Limestone, Lowndes, Madison, Montgomery, Perry, Pickens, Sumter, and Tuscaloosa is at least one-third more than half the value of all the other sixteenth sections in the State, while the white population of those counties is but little more than one-fourth of that of the whole State. Dallas County, with a white population of about 7,000, has an annual fund of near \$5,000, while Mobile, with near 18,000 white inhabitants, has no fund. Coosa, with a white population of near 11,000, does not get annually \$600, and Pike, with near 13,000, gets less than \$450. The whole county of Covington receives but \$6.90, while one township in Perry gets \$1,200 annually, and another but 67 cents.

These funds, which Judge Meek happily characterized as "mis-applied bounties," belonged, as we have seen, to the individual townships and could not, under the law, be pooled in a common State fund.

He says.

The limitations of this beneficent grant have defeated the very object for which it was intended—the advancement of education—and have been the chief cause of the obstacles which have existed to the establishment of a public school system in this State, for there have been sufficient indications in the past that the people would not favor any system of public schools which did not embrace the sixteenth section fund within purview of its arrangements, and give to the munificent appropriations some equitable and efficient application.

Your committee * * * have accordingly prepared, with great care and labor, a system of free public schools, in which this is made the fundamental and pervading provision. They have proceeded on the principle that every child in our State, of suitable age, is entitled to a sufficient sum to give him the elementary branches of knowledge, free of cost, and that when any child does not receive such sum from the sixteenth section fund, it should be afforded to him by the State, * * * the object being to establish in every township, where the number of children demands it, at least one free public school, for primary instruction. * * * To meet this want

will require reasonably liberal appropriations. * * * Surely \$2 a scholar is the lowest minimum which could be regarded as adequate for that purpose. * * * There can be no doubt that the people of this State would more gladly accede to such a disposition of the funds in the treasury than to any other. They exhibit in the clamorous demands which have been sent up every year for the establishment of common schools and in the utterance of all the organs of thought and sentiment in our State. It is not from any one class that this appeal comes—from no favored few—but from the great body of the people * * * whose voice should be heard and obeyed. * * * There can be no doubt that it is the unquestionable right, the highest interest, and the most imperative duty of the State to educate her children.

The bill introduced by Judge Meek, which became a law on February 15, 1854, created in the first place an "Educational fund," consisting of—

(1) The annual interest at 8 per cent of that part of the surplus revenue deposited by the United States with Alabama under the congressional act of June 23, 1836.

(2) The annual interest at 8 per cent on the proceeds of sales of certain lands granted by the United States for the use of schools in the valueless sixteenth sections, under act of August 11, 1848.¹

(3) The annual interest at 6 per cent on the funds which have or may accrue from sales of sixteenth section lands.

(4) \$100,000 from the State treasury.

(5) All money arising from escheats.

(6) An annual tax of \$100 for each \$100,000 of capital stock of every bank, insurance or exchange company, or in that proportion.

(7) An annual tax of \$100 levied on every railroad after it had declared dividends.

(8) An annual tax of \$100 on every agency of any foreign bank, insurance or exchange company.

In his first report the State superintendent wrote of these various sources of revenue as follows (pp. 3-4):

The two funds placed under his control, under the general title of "Educational Fund," were created at different times, were subject to different laws, and sustained different relations. One was the property of the State, consolidated and unchanging in amount;² the other belonged to the townships in their individual capacity, distributed among them in all possible amounts, ranging from a few cents per annum to many hundreds of dollars, and was constantly accumulating. A small portion of the latter was still under the management of the banks, another and much the larger was in the treasury; a third, in the form of sixteenth-section notes, was found in the office of the comptroller of public accounts, and scattered over the State in the hands of trustees, withheld under special laws, or in defiance of law.

To unite these funds thus situated, and bring them under one general system of accounts which would do full justice to all, and more than justice to none, cost an amount of thought and labor which he had not been prepared to expect, and which few, perhaps, now can realize.

¹ This referred to the transfer of certain lands granted for internal improvements by act of Sept. 4, 1841, to "the use of schools in such townships of said States as in which the sixteenth or school sections are comparatively valueless."—S. at L., ix, 281.

² The Surplus Revenue Fund of 1836.

The administrative officers provided were:

- (1) A State superintendent of education.
- (2) Three commissioners of free public schools in each county.
- (3) Three trustees in each township.

The superintendent was to be elected by the assembly for two years and was paid \$2,000 per annum, and his duties—those usually pertaining to this position—were defined. The commissioners included the county judge of probate and were elected by the people. They had a general supervision of schools in the county and were to control all school moneys. They might provide houses, apparatus, books, libraries, or other conveniences, and served without pay. The trustees were elected by the people, could establish schools, and employ teachers who were in every case to be first “examined and licensed.”

The State superintendent was made the authority in control and management of Federal funds, and all funds were to pass through the State treasury. School age was fixed at 5 to 18, and the superintendent was instructed to seek to equalize, by means of the Educational Fund, “the irregularities of distribution produced by the sixteenth-section fund,” which was also made a part of the Educational Fund.

The commissioners had authority to consolidate weak townships and the trustees were required to have the pupils divided—graded as we say—

into at least four classes, the first of which shall be known and designated as the primary class. This class shall embrace instructions in reading, writing, and simple arithmetic, and such instruction shall always be given to all pupils requiring it, free of any cost or charge * * *. The other classes * * * shall be made successively free of any cost for instruction, according to such gradations, whenever the fund coming to the township or united townships for school purposes, from any source, will justify it.

In cases where public funds were not sufficient to make all classes free, “moderate tuition fees” were to be charged in order to give the teacher “a fair compensation for his services.”

Each county was “authorized” to raise annually by special tax upon real and personal property an amount not exceeding 10 cents on the \$100 valuation, “for the support of common schools therein and for providing suitable houses and purchasing libraries and apparatus for such schools.” These moneys were to be paid into the county treasury, were apportioned therefrom, and at least 50 per cent of this local fund had to go for the payment of teachers. All money from “the State school fund” had to be used for teachers only and all teachers were to be “duly examined, approved, and employed by competent and lawful authority.”

This school act—a remarkable one, when we consider the time and the State in which it was enacted—provided as follows:

(1) An educational fund was established by recognizing existing sources of income and creating new ones. It authorized, but did not command, a local tax and the public schools thus established were to be supported from the income of the State school funds and from local taxation. There was no direct State taxation for schools, although the State contribution of \$100,000 of necessity came from taxes. In this way, local self help was encouraged by the recognition and financial aid of the State, which also sought to equalize from its own funds the inequalities between rich and poor communities.

(2) The primary work was made absolutely free from tuition charges.

(3) The grading of classes and the examination and certification of teachers were provided for.

The weakness of the law was the lack of efficient supervision. The superintendent did not have sufficient power to compel reports. The county commissioners were in part public officials already, and neither they nor the township trustees were required to show any particular fitness for their work, nor were they paid for their services. It was a public school system without proper local supervision, and without the necessary centralization. Yet it did not escape criticism, protests against it being recorded in both houses. That of the senate, signed by six members, was long and bitter. It characterizes the law as "unjust and totally inadequate." The objectors charged that the law set aside \$83,333 "to be applied beyond the limits of the townships to which it belongs." This fund was characterized as a "sacred trust" while the house objectors styled it a "vested right." The "extraordinary power" given to the superintendent was assailed, the "generous confidence" granted was "liable to abuse" and gave "too large a range of discretion." The entire sum—

is left in the discretion of one man, with the only qualification that his rule of distribution shall equalize sixteenth sections, of which it leaves him the sole and exclusive judge * * * The bill, repudiating as it partially does, the sixteenth section funds as due and belonging to the inhabitants of the townships, does not give these townships the poor privilege of having the law to prescribe the rule of decision, but by the will of one man and in the way the temptations of self interest and the allurements of ambition may prompt him.

Both protests were probably justified in objecting to appropriations on any other basis than that of actual attendance. The senate protestants also objected—

because \$2,000 are appropriated to pay the superintendent and \$3,000 more to the circulation of essays, periodicals, and to enlighten the people and not to educate the children as the bill proposes—thereby wasting enough money to educate annually 1,000 of the indigent children of the State.

Of the unheard-of and radical proposals of the bill the house objectors said: "Such provisions are not adapted to our latitude, and need only to be named to be seen to be objectionable." Nor did the senate objectors fail to make their appeal to religious bigotry.

The powers conferred on the superintendent are extraordinary. He can govern every free school in the State absolutely, prescribe the course of study, the books, say which are sectarian or what not, and exclude or admit them at will. The cunning freethinker or sectarian would want no better opportunity than this to impress his own opinions upon the entire State through the rising generation.

This Alabama State law of 1854, product of the brain of Alexander Beaufort Meek, lawyer and judge, editor and legislator, poet and soldier, shows a grasp of educational problems, a comprehension of school difficulties and school needs and a modernity of methods and aims that are truly astonishing.

The assembly chose as its first State superintendent, William F. Perry, an experienced and enlightened teacher who had long been connected with private schools in the State and who later became a brigadier general in the Confederate army. He was urged for this place by Gen. J. Tipton Bradford, Hon. J. L. M. Curry, and Chief Justice W. P. Chilton, the opposing candidate being Rev. Dr. Andrew A. Lipscomb, a teacher and scholar then-living in Montgomery and later chancellor of the University of Georgia.

General Perry has told his experiences in organizing the schools in his *Reminiscences*, already quoted. He says:

After setting my office in order, I opened correspondence with the judges of probate, asking them to order elections of trustees in the townships and to instruct them, when elected, to ascertain and report the number of youths of school age in their respective townships. * * * I was ignorant enough to expect that the work could be accomplished in the course of two or three months at furthest.

Quite a number of the judges of probate paid no attention to my requests. Many found it difficult to reach the townships. Circulars could not be addressed to townships which had no organization and no legal representatives. Notices in the county papers often failed, while in many counties no paper was published. And then, there was the inertia of ignorance, the difficulty of getting masses of uninformed people out of the ruts in which they had been moving for generations.

To the people of more than one-third of the State, the township as a corporation, or as a body politic of any kind, was unknown. The very boundaries had faded from their minds and memories with the disappearance of the marks made on the forest trees by the surveyors who had located them. To reach these large masses of people, induce concerted action, was a task the difficulty of which no one had anticipated and which was accomplished at last by dint of hammering. * * * No difficulty occurred in the counties whose townships had maintained their school organization.

It was late in the fall before the complete returns were received and the apportionment was begun. In the absence of any specific direction of law, the distribution was made by giving to the townships that had nothing and adding to those that had little until the appropriation was exhausted, leaving those whose school revenue exceeded the average thus produced simply to retain what they had.

I felt that it would have a dwarfing effect upon the system and upon the minds of the people to fall into the habit of employing teachers for only such time as the public

money would last, and was anxious at the beginning to give such direction to the State appropriation that it would stimulate rather than suppress the spirit of self help in the people. The trustees were therefore advised to authorize teachers whom they approved to raise their own schools by subscription, the patrons being responsible to the teacher for the tuition, at specified rates, of the pupils subscribed, and the trustees engaging to use the money under their control, as far as it would go, in discharging the liability of the patron.

This * * * had several advantages: First, it would avoid all danger of complaint that the trustees had imposed upon the people a teacher who was not acceptable; second, it put all of the patrons upon a method of procedure with which they were already familiar; third, it showed them that the State had not proposed to relieve them of all expense and responsibility in the education of their children, but to guide and assist them in the performance of a duty which they could never abdicate.

The first of January, 1855, was fixed as the beginning of the school year; and the rude machinery began to move. * * *

The year 1855 was spent in visiting the counties of the State and in conducting an extremely heavy correspondence. Questions of all shapes and sizes, growing out of every thinkable complication of conditions, came in a continuous stream. At first, some of them were very embarrassing. After a time, however, I became so saturated with the system, in its entirety and in its details, that my mind reached conclusions with ease and confidence. * * *

In my tour through the State, I found the schools generally in operation and the people pleased and hopeful, especially in those counties which were most benefited by the system; and returned to my office feeling fully assured that the public educational system of Alabama, though still crude and imperfect, had come to stay.

The test of actual use showed the weakness of the law of 1854. Gen. Perry continues:

The county administration was imposed upon the judges of probate, who were required to perform their duties without compensation. The township officers consisted of a board of three trustees. They were charged with duties which called for more than ordinary administrative power. They were to raise means for the erection of schoolhouses when such were needed; to divide the townships into such districts as the situation demanded; to select and employ teachers and supervise the schools; to make settlements and submit annual reports. * * *

The weakest feature of the system was the county administration. The judges of probate, not without good reason, regarded the imposition of new and onerous duties upon them without compensation, as a great hardship; and while many of them were faithful and efficient, they could not give the amount of attention that was absolutely essential to the prompt and efficient inauguration of a united system.

The adoption of the township as a school corporation, although under the circumstances a necessity, involved great inconveniences. It complicated the duties of the trustees, who were generally plain, unlettered men, and led to neighborhood jealousies and dissensions in reference to the location of schools.

The first annual report of Gen. Perry, that for 1854-5, tells more accurately perhaps, but certainly less vividly, substantially the same story and is quoted here because it represents contemporaneous documentary evidence.

This report shows that the people had not yet learned the importance of making returns. Only 8 counties—Chambers, Benton, Randolph, Shelby, Pickens, Barbour, Limestone, and Lauderdale—made fairly complete reports. These reported 312 schools and

9,658 pupils. It was said that "several hundred" schools had been established since June 30, 1855, and it was "positively known that a large number in existence before that time were not reported." The total number of pupils 5-18 years of age was given as 145,588, and the sum available for distribution to each was \$1.33½.

Says the superintendent:

Each township having no sixteenth section fund accordingly received an amount produced by multiplying that ratio into the number of children reported by it. Those having from their sixteenth section fund less than that average received such sum, as, added to the interest of their fund, would be equal to such average, and those already having more, simply retained what they had. The number of townships belonging to the latter class is not precisely known, since some that have sixteenth section funds failed to report.

There was constant trouble over the payment of salaries and in forwarding the necessary funds for this purpose from the superintendent's office. Three months after funds were due and payable 15 counties had not drawn them because the commissioners were unwilling to incur "the responsibility and personal risk of ordering remittances by mail, and they have no other means of obtaining it."

There was also a contention among various schools, each of which demanded its pro rata of the public funds "instead of employing a single teacher at a fixed salary." In these cases the school trustees—

established such a number of schools as the people needed, binding themselves to make an equitable distribution of the money under their control among them, according to the attendance upon each and the length of time each was taught, leaving the patrons responsible to the teachers for the remainder of the tuition, at rates previously agreed upon.

As a result of his visits to the schools the superintendent was constrained to say:

The melancholy reflection still, however, obtrudes itself that three-fourths of the youth of the State have hitherto either gone without instruction entirely, or have been crowded into miserable apologies for schoolhouses, without comfortable seats, without desks or blackboards, often without the necessary textbooks, and still oftener without competent teachers.

but he believed that the law was not in advance of public sentiment—that the people of the State, by an overwhelming majority, are favorable to the principle of public education, and are prepared to sustain the legislature in all judicious measures for giving additional efficiency to the system.

He urged various changes in the law and declared that the—

ultimate establishment of State normal schools for the professional training of teachers can not but be regarded by the enlightened friends of popular education as a consummation most devoutly to be wished.

The scope of the course of study laid down for the public schools at this time by the superintendent included:

Orthography, reading, penmanship, mental and written arithmetic, geography, history of the United States and outlines of universal history, English grammar and

exercises in English composition, natural philosophy and astronomy, bookkeeping, physiology and hygiene, and the Constitution of the United States.

It will not be understood as the object, in recommending a course of study, to lay down a number of branches to be pursued in an inflexible order, and in a specified time. That systematic arrangement aimed at in most colleges, by which a regular gradation of classes and a fixed order of studies pursued in a given length of time are maintained, can not be expected and it is believed need not be desired in the common school.

Such branches have been selected as are considered essential parts of a good common-school education—such as every American youth should pursue in order to be fitted for the active duties and the high responsibilities of life.

In some townships the amount of the public fund may justify the employment of teachers competent to give instruction in a more thorough and extensive course than that recommended; while in others the schools will be made up almost entirely of pupils in the primary class.

Elaborate treatises on natural science can not ordinarily be used; and hence, such have not been prescribed. The works on this subject in the catalogue of textbooks are simple and popular in their style, and have been selected with reference to their adaptedness to the great majority of those into whose hands they will be placed. * * *

No apology is deemed necessary for recommending physiology and hygiene as a branch of common school education. It is rather a matter of astonishment that it has hitherto received so little attention.¹

The pupils are classified according to studies, as follows:

Class I.—Orthography, reading, writing, mental arithmetic, written arithmetic, through the fundamental rules.

Class II.—The above continued, defining, first lessons in geography, and history.

Exercises in definition, in some form, should be kept up throughout the whole course. The pupil should never be without his dictionary at his side, and the faithfulness with which it has been consulted should be tested by the teacher at each recitation.

This remark is particularly applicable to the study of history which, properly pursued, not only strengthens the memory and stores it with facts and principles, but also makes daily additions of new terms to his stock of words and imparts facility and precision in their use.

Class III.—Any of the above, with English grammar, composition, history, and simple exercises in bookkeeping.

Class IV.—Such of the above as may not have been completed, the natural sciences, bookkeeping, physiology, and the constitution.

Spelling, reading, and declamation throughout the course.

A fifth class has been introduced into the form of trustees' reports. It was designed to include any of the higher English branches that may be pursued in the public schools by pupils under 18 years of age.

In the above classification an endeavor has been made to conform as near as possible to that natural order in which the human faculties are developed in childhood.²

The textbooks used included:

Denman's Primer; Webster's Spelling Book and Sequel; Webster's Dictionary; Gallaudet's Illustrative Definer; McGuffey's series of Readers, revised and stereotyped edition (particular attention is invited to the exercises in articulation); Tower's Gradual Lessons in Oral and Written Arithmetic (this work may precede Colburn's Mental Arithmetic and Davies's Arithmetic); Monteith's Youth's Manual of Geog-

¹ Forms for the use of officers of free public schools, etc., Montgomery, 1854, pp. 14-15.

² *Ibid.*, pp. 16-17.

raphy; Smith's Quarto Geography; Tower's Elements of Grammar; Tower's English Grammar; Hurd's Grammatical Corrector; Thomas' First Book of Etymology; Guernsey's Primary History, or Parley's First Book of History; Willard's Abridged History of the United States; Parley's Universal History, or Willard's, which is far preferable when the pupil is more advanced and has the time to devote to it; Quackenbos' First Lessons in English Composition; Frost's Easy Exercises in Composition is also an excellent work for beginners; Comstock's Primary Lessons in Natural Philosophy; Comstock's Philosophy, the revised editions of 1853-54, greatly improved (a small book of questions and illustrations accompanies it); Smith's Illustrated Astronomy (Olmsted's School Astronomy is preferable for more advanced pupils); Mayhew's Practical System of Bookkeeping, with Key; Cutter's First Book of Anatomy, Physiology and Hygiene; Hart's Exposition of the Constitution of the United States; Comstock's System of Elocution; Vodge's Mensuration, after arithmetic has been thoroughly mastered, will be found an excellent work for those who have not time or opportunity to study the theoretical demonstration of mathematical principles.

The work on English grammar in the catalogue has been selected after some hesitation. The novelty of the manner in which the subject is presented may render it objectionable to many. It will be found, however, to contain no radical innovation, its chief peculiarity consisting in its arrangement and in the prominence given to analysis and construction. It is recommended to the examination of teachers. Those who, after such examination, may still prefer to conform to established usage will find Wells' Elementary and School Grammars excellent works.¹

The books recommended for teachers were:

The School and the School-Master, by Dr. Potter and G. B. Emerson; Theory and Practice of Teaching, by D. P. Page; The Teacher, by J. Abbott; Slate and Black-board Exercises, by W. A. Alcott; Popular Education, by Ira Mayhew; American Education, by Mansfield. Barnard's School Architecture is an excellent work for those who may be engaged in the erection or furnishing of schoolhouses.²

In his message to the legislature in November, 1855, Gov. Winston refers to the school law of 1854 and says:

The results of the school bill of the last session have not been so favorable as was hoped for by its friends. In some parts of the State it has worked well; in others it has not been well received and has not been productive of good. It was not to have been expected, however, that a system perfectly harmonious could have been adopted at once.

As a result of various criticisms, the law of February 15, 1854, was revised, and on February 14, 1856, another act, one "to render more efficient the system of free public schools in the State of Alabama" was passed. The new law was based on the experience gained during these two years. It increased the interest on the sixteenth section funds from 6 per cent to 8 per cent, changed the lump sum given by the State so that the total amount of money available for each child should be \$1.50, and broadened slightly the sources from which the school income was derived. The State superintendent was required to make an annual report to the governor, and in place of the county commissioners there was to be elected a county superintendent of education, whose compensation was to be fixed by the county court.

¹ Forms for the use of officers of free public schools, etc., Montgomery, 1854, pp. 19-20. ² Ibid., p. 21.

He was to have general superintendence of the county free schools and visit them at least once a year; he was "to note the course and method of instruction and branches taught" and give "instruction in the art of teaching and the management of schools;" to see that no "sectarian religious views be taught;" make "proper distribution" of all school funds, "paying over promptly, whenever called upon;" make an annual report to the State superintendent on the number of children, the condition of the sixteenth section lands, if not sold, and on the schools of all sorts in his county; suggest improvements; examine "all persons who propose to teach;" "organize and hold annually" county conventions of teachers and provide beforehand for the delivery of lectures "upon topics connected with schools and education;" he was to seek out "indigent and meritorious" young men entitled to be beneficiaries of the University of Alabama and encourage them "to become students thereof;" handle all county money for education and report on the same.

The duties of the local trustees, the control of the school funds by the State superintendent, the power of local taxation, and the distribution of funds thus raised remained substantially the same as in the law of 1854. The payment of school moneys was simplified, for under the new law the State superintendent was to notify the local authorities of the amount due the particular county and the tax collector for the county was to pay the sum over to the county superintendent. The school age was made 6 to 21, instead of 5 to 18, the length of the school term was fixed at six months in the law of 1854, and in both laws the independence of Mobile County of the State system, except to the extent of drawing its pro rata and reporting, was reaffirmed.

Chapter VII.

THE WORK OF THE PUBLIC SCHOOLS, 1856-1865.

Gen. Perry, first chosen State superintendent by the assembly in 1854, was reelected February 14, 1856, and resigned September 1, 1858, after serving more than four and one-half years. He was succeeded by Hon. Gabriel B. Duval, who resigned in 1864.

From Supt. Perry's reports we learn that the "Educational fund," created by the law of 1854, produced for the calendar year 1855 an income of \$237,515.39, derived as follows:

Interest on sixteenth-section fund.....	\$74,687.60
Interest on valueless sixteenth-section fund.....	7,767.30
Interest on Surplus Revenue fund.....	53,526.94
State appropriation.....	100,000.00
Special taxes on corporations, etc.....	1,300.00
Escheats.....	233.55
Total.....	237,515.39

The number of children of school age, 5 to 18, was reported as 145,588. In 1856, the school population, owing perhaps to a more careful enumeration, as well as to an extension from 6 to 21, was reported as 171,093, with an enrollment of 89,160 pupils, including Mobile. This number represented about 52.1 per cent of the total school population. There were 2,281 schools and the average attendance was 38,265, or 22.4 per cent. The school term averaged six months, being extended to nine months in Mobile, to eight and three-fourths months in Russell, to eight in Chambers, Lowndes, Macon, and Montgomery.¹

The impression that the schools were already doing good work is clearly shown by a comparison printed in the Alabama Educational Journal of the school enrollment in 23 given counties in 1850 and 1856. According to the census, these counties in 1850 had in school 27,023 pupils; in 1856 this number had risen to 51,635.

The funds distributed by the State in 1856 were derived as follows:

Interest on sixteenth sections and accumulated interest.....	\$90,023.49
Interest on valueless sixteenth sections.....	7,767.30
Interest on Surplus Revenue, 1836.....	53,526.94
State appropriation.....	100,000.00
Licenses, special taxes, etc.....	16,371.68
Total.....	267,689.41

¹ Alabama Educational Journal, Oct., 1857.

This sum furnished a per capita of \$1.37½ and paid 57 per cent of the entire tuition in the public schools, the total expenditures as estimated by the trustees being \$474,370.52.¹

The State superintendent, in his report, called attention to the failure to appropriate \$1.50 per child as required by law, because of the lack of funds, urged that a "fixed ratio of distribution be established," and asserted that the present amount was "certainly not sufficient to sustain a well-developed and efficient system." Because of the State debt, however, his demands for the schools were modest. In a letter to Rev. J. H. Baker, dated July 3, 1857, he said:

I do not think it would be safe at present to attempt the increase of the school fund beyond such an amount as will produce \$1.50 or \$1.60 per child. That much can be appropriated and still leave enough to meet the State bonds as they fall due. * * *

I would also dread to see an attempt made *now* to establish normal schools at much expense to the State. Public opinion does not seem ripe for the movement, and a failure would not only prevent effort hereafter in that direction, but will react injuriously upon our system. My hope has been that the county associations of teachers gradually protracted into institutes may be made to supply the place of normal schools at present and by degrees prepare the public mind for an advance movement by demonstrating the utility of special preparation on the part of teachers.²

Gen. Perry notes that many county superintendents appointed under the act of 1856 found their counties in a state of educational chaos and that most of the year was spent in the work of organization, an "unprecedented impulse" being thus given to education. He believed that the cardinal points toward which special effort should then be directed were:

1. The construction and furnishing of schoolhouses.
2. The qualification of teachers.
3. The enlightenment of public opinion.

Of the character and value of schoolhouses as they then were, we are left in no doubt by a writer in the first number of the Alabama Educational Journal, January, 1857. The article was published by Gen. Perry and may therefore be assumed to be with his tacit authority and sanction. This writer says:

The increase of wealth and energy has given us comfortable and some elegant private residences. Large and beautiful churches have been erected. Public spirit has also extended to the erection of commodious jails and courthouses. * * * A large number of the schoolhouses of our State have come under our observation and of this number, we truthfully say that at least nineteen-twentieths are in an unfinished condition—without chimneys or stoves, either unceiled or unplastered, badly ventilated or entirely without windows, miserably furnished with benches and desks, with no place for water buckets or dinner buckets, and in every respect the most uninviting houses in the entire vicinity. The outside appearances are, if anything, worse—the house unpainted, the grounds unimproved, no shade trees or shrubbery, no pleasant playyards.

¹ See Perry's report for 1856, in Alabama Educational Journal, May and June, 1857.

² Official letter book, 1856-1860, MS.

Another writer said that many of the schoolhouses were old, decaying log cabins, and were devoted to schools because fit for no other use. He estimated that only about one-eighth of the school population could then be furnished with decent school buildings. Gen. Perry himself said in 1857 that notwithstanding great improvement since 1854—

one-third of the structures in which the pupils of our public schools are congregated are destitute alike of every attractive feature and every element of comfort.

Another anonymous writer contributed a series of articles on the "School law of Alabama" to Gen. Perry's Alabama Educational Journal,¹ which had all of the merits of frankness, and which showed that there was at least one person in the State who knew how to think for himself and to express himself in vigorous English for the general enlightenment of the people on this new educational system. He complains of the indifference of the public to educational work. Writing of the superintendent's report, he says, with a piquancy and flavor that is strongly modern:

We do not believe that five editors in the State have read it, and we doubt if 10 lawyers, doctors, or ministers have *seen* a copy of it. The apathy that hangs over our educational interests is perfectly surprising. While every paper in the State would contain, as an item of general interest, the conversion of a Hottentot or Kangaroo to Christianity, or would follow with doggish pertinacity the footsteps of a filibuster to his final doom, not one in ten, judging from their silence concerning it, recognizes the existence of such a document as the Annual Report of the Superintendent of Education, or of such an interest as it discusses.

This writer then pays his respects to the school law itself. The constitution of the State declares that "schools and the means of education shall forever be encouraged," he says, but it would seem to be that the present law might be combated on constitutional grounds, for nothing appears more plain than that by its influence schools and the means of education are to be forever discouraged.

He says further:

The school law of Alabama is very nearly allied to that of New York in one respect, while it is essentially different in another. On paper it will bear the most rigid inspection; indeed, it challenges the admiration of the most critical scholar. We are certain it was written by a man of unquestionable literary taste, but it was written without the slightest reference to its adaption to the State of Alabama. It provides for trustees, county and State superintendents, while the fund about which it talks and on which it was founded would scarcely pay said officers with 8 per cent interest. On paper, it compares well with the New York law. In its practical effects, it compares with the law of no State with which we are acquainted.

The principal duty of the county superintendent seems to be to push up the various townships to an election of their trustees, by threatening to withhold the \$1.25 per child if this provision of the law is not complied with. The business of the trustee when elected is to receive this little stipend and pay it over to the teacher. Year after year

¹ Beginning with December, 1858.

is this little round of duty performed, and year after year no more good is accomplished than would be by making a bonfire of the money at the center of each township. * * *

The county of Mobile has long since relieved itself of the sluggish movements of the State, and has perfected a system of its own. * * * The children of this county have nothing of which to complain. Pupils in the primary and intermediate departments are educated free of charge. In the grammar and high schools tuition is \$2.50 and \$4 per month, respectively. Into some of these schools every child in the county is entitled to admission. In this respect Mobile has no rival in the State with which she need fear a comparison. * * * A tax of half a cent on a dollar of the property of the State would give every child within its limits an opportunity to secure an education fitting it for the duties of life.

In his fourth article, this writer says that "many persons are found ready to controvert the principle [of education] itself." He presents, also, some real difficulties. "The chasm between the wealthy and poorer classes is here far more impassable than in the North. * * * Where there is no community there can be no school."

He suggests that the amount of money needed for the schools be raised by taxation; that it be expended in building suitable school-houses for every 25 pupils, and that competent teachers be paid the equivalent of \$1,000 per year; that a uniform course of study and uniform textbooks be adopted.

Fortunately, we have official letters in which Gen. Perry expresses himself on some of the questions discussed by the anonymous writer, and where he gives us what we may characterize as an official view of the matter. As to the general interpretation of the school law, he writes C. O. Shepherd, at Huntsville, on January 7, 1858:¹

In pronouncing upon the school law as a whole, it must be borne in mind that it was not framed for such localities as Huntsville, but was designed to take effect over 50,000 square miles of territory, in most of which the teachers employed were deplorably ignorant, and their schools, *ex necessitate rei*, of the humblest grade.

The task assumed by the State was not only to furnish such pecuniary aid to the people as it might be able, but to set to work such agencies as might tend to improve the quality of the instruction which our youth were receiving. It was, therefore, a matter of primary concern, to elevate the standard of qualifications among the common-school teachers of the State, and by degrees to get rid of those who proved hopelessly incompetent. One of the means employed for this purpose was the supervision and inspection of the schools by men selected for the purpose. * * * The law, however, does not give them the right to prescribe textbooks or to control the internal management of the schools. * * * As a further means of improving the character of the common-school instruction, it is the policy of the law to maintain a well-defined line of distinction between public schools and those which are not. It has expressly provided that no school shall participate in the school [fund] set apart for educational purposes "unless such school shall be instructed by a teacher or teachers duly examined, approved, and employed by competent and lawful authority as hereinbefore provided."

The main object of this was to prevent worthless teachers from getting up little schools in pine-pole pens throughout the country and having the public fund frittered away upon them.

A year later his successor points out the particular classes for whom the public schools were primarily organized and the necessity

¹ Official letter book, 1858-1860, MS.

of reaching them. In a letter to J. B. Speake, February 4, 1859, he says:¹

The greatest difficulty in its [the school's] way now is the ignorance of the law or a disregard for its provisions manifested by the trustees. No child of the educational age can be excluded from a public school whether the school be taught by a lady or not. If such a proceeding were allowed, it might and most probably would result in the admission only of such pupils as were able to pay a tuition fee in addition to the amount arising from the educational fund and would exclude the children of the poor who are unable to pay and for whose benefit principally the fund was established. Such a construction would bring the law into merited disfavor and defeat its object, which is to extend upon equal terms to all the children of our State the inestimable blessing of liberal instruction.

These discussions, these strictures, had their influence in awakening the people to a keener realization of the importance of schools. There were signs of growing recognition. The income from public funds was: 1855, \$237,515.39; 1856, \$267,689.41; 1857, \$281,824.41; 1858, \$271,378.97.

These figures indicate that the system was growing in importance and general usefulness, but it had not yet passed the age when it was free from attack. In the assembly of 1857-58 the attack was made by no less an authority than Gov. John A. Winston himself, who in his message for that year suggested that—

the expense of a county superintendent might be avoided by constituting the probate judge and the county commissioner in the several counties as a body to act in place of that officer. The appropriation should be applied more on the principle of equity amongst the scholars throughout the State. Severe scrutiny should be exercised in regard to the use of unsound textbooks; * * * unfortunately, as yet, our school books and teachers are imported. * * * By a prohibition of all books inculcating improper sentiments to be taught in the South, we may soon insure the possession of textbooks the work of our citizens.

Surely Gov. Winston had not read the recent history of his own State, since what was substantially this identical scheme had been abandoned only two years before.

There were also other lines of attack on the county superintendent, and for other reasons. On January 21, 1858, the minority of the senate committee on education filed a protest in which they denounced the county superintendent and declared that:

No officer with such arbitrary power should be placed over a free people to dictate to them or their school trustees in the matter of educating their own children.

They urged that, if this county superintendent should remove or refuse to license "such teachers as the trustees should select," his office should be abolished.

In reply to all of these attacks Gen. Perry points out the necessity for the position and the impossibility of getting the work done by the judges of probate as the law of 1854 attempted. He shows also

¹ Official letter book, 1858-1860, MS.

the property of the district it would be impossible to equalize to all the townships the money to be devoted to public education; he argued that conditions were such that equality could never be attained until these sixteenth-section funds were consolidated with the other funds and asks:

Can not our good parent, Congress, be induced to take back its unfortunate gift and rebestow it in such a manner as not to cripple every effort made to advance the interests it was designed to promote?

In his report for 1857 the superintendent pointed out another weakness of the system, that under which the county school money was paid out by the county tax collector. He said:

A majority of those officers do not make their collections in time to cash promptly the orders issued upon them from this office in favor of the county superintendents.

The result was that in some cases no school officer could tell how much a particular school district would receive or when that amount would be paid. The teachers were the ones who, in the last analysis, bore the brunt of this burden of uncertainty. Their salaries were nearly always in arrears, and they had only the poor choice of discounting their vouchers or waiting for months for the salaries due. And worse still, if the school funds were insufficient to pay the salaries earned, or if, through the carelessness and neglect of local trustees, funds were withheld altogether, as the law directed, the trustees went free and the teachers had no redress. The whole system was crying out for an equalization of tax burdens as well as of advantages, for a definite knowledge of the sums to be distributed per capita of school population, for greater promptness in payment, and for better informed and more earnest county and district officers.

The question of the improvement of teachers had been taken up by Gen. Perry and urged on county superintendents, local trustees, and on teachers themselves. The Alabama Educational Association was organized in 1856, and had several successful meetings. Local or county associations were beginning to make their influence felt and to give "cheering assurance of much future good." Their proceedings and addresses were published, created some discussion, and opened the way for the consideration of teachers' institutes, normal schools, public libraries, etc. Growing interest was indicated and promoted also by the publication of the Alabama Educational Journal, begun at Montgomery by Gen. Perry January 1, 1857. It led a precarious existence to the end of 1859, being once suspended and once changed in form. It died before the pressure of war was upon it, but not before it had been of service in broadening the horizon of the men who were fighting against the powers of darkness. Questions of sectional politics were not entirely absent in these educational considerations. We find them cropping out on the subject of text-

books, and it was perhaps with Gov. Winston's attitude on the matter in mind that Gen. Perry writes Hon. B. F. Porter, September, 29, 1857:

I believe that a good opportunity now exists for some one to make largely by the publication of a series of works of that description. They must be, however, fully equal, if not superior, to any extant. They must be afforded, too, on as favorable terms as any now on the market. Sectional prejudices are not strong enough to secure for a work gotten up here favor or patronage over northern ones superior in quality or cheaper in price. *Cæteris paribus*, it will have greatly the advantage, the complaints of some southern authors to the contrary notwithstanding. I * * * do hope that some plan may be devised for supplying Alabama and the South with indigenous works that shall meet the wants of our schools.¹

Hon. Gabriel B. Duval became the second State superintendent on September 1, 1858. He completed and published the report for the year ending November 30, 1858, dated October, 1859, and we have no others till the days of reconstruction. In 1858 the school population was reported at 180,160, with an enrollment of 98,274, or 54.5 per cent, and an average attendance of 42,274, or 23.4 per cent, in 2,597 schools. The total expenditure for 1858 was given at \$564,210.46, which would indicate that \$292,831.49 was received by tuition and from other private sources.

Mr. Duval continued the work of organization begun by his predecessor. Besides phases already noticed, he points out that under the new State system private academies were decreasing in members and in attendance, and marks these things as indications of a change of sentiment in the State more favorable to the public system.

He says:

Indifference has not been felt toward education itself, but to governmental aid in procuring it. The happy condition of our social relations, and the general diffusion of wealth, has rendered it comparatively unnecessary; wherever it was needed, private generosity generally anticipated public aid.

He says further:

This indifference has had another cause in an objection, rising almost to repugnance, to what was improperly supposed to be State interference with personal duties and rights, a fear of the absorption of the individual in the body politic, and of his subjection to the State.

¹ Official Letter Book, 1858-1860, MS. As early as January, 1844, the Southern Educational Journal advertises a series of Alabama readers prepared by Charles W. Sanders: "The attention of teachers and parents is invited to the following series of readers. Complaints have long been heard of the reading books of the North, made by people whose political institutions differ from ours, and thrown upon the children of the South, for their indiscriminating minds to peruse. The books forming this series have been carefully revised and freed from all objectionable pieces." The list of other school books offered in the same connection and apparently used in the schools of the State, public and private, include:

The Child's Reader and the Rhetorical Speaker, by T. D. P. Stone; Rhetorical Reader, by Ebenezer Porter; Webster's Spelling Book and Dictionary; Olney's Geography; Watts's Improvement of the Mind; Bullions' English Grammar; Comstock's Natural Philosophy, Chemistry, Mineralogy, Physiology; Olmsted's Natural Philosophy; Worcester's Dictionary; Abercrombie's Moral Feelings; Combe on Health; Goodrich's Ecclesiastical History; Lincoln's Botany; Burrett's Geography of the Heavens; Alexander's Evidences; Willard's Histories; Hedge's Logic; Newman's Rhetoric and Political Economy; Kames's Criticism; Davies's mathematical books; Anthon's series of Latin and Greek books; Andrews' Latin books; Bullions' Greek Grammar; Levisac's French Grammar, etc.

This process of reasoning applied not only to Alabama, but to the whole South and explains to a great extent the slow growth of the public systems of education in that section.

It is evident that educational progress was being made in Alabama under the administration of Mr. Duval, but in the legislature of 1858-59 old foes with new faces again attacked the system. They now sought to abolish the office of State superintendent and give his duties to the comptroller; to abolish the county superintendents also and give their duties to the county treasurer—all in the name of economy. Gov. Winston was now nearing the term of his office, but in two years he had seen a great light. He now argues that the duties of the comptroller were already heavy; that school matters would require for him an additional clerk; so little would be saved. In the same way, if the county superintendents were replaced by county treasurers they would demand more pay and so "little or nothing could be saved in that way." He then adds:

It occurs to me, that those who contemplate making this change have not maturely considered the subject. The education of the children of the State is one of the most sacred duties of parents and the Government. The constitution declares "that schools and the means of education shall forever be encouraged in this State." * * * Any policy calculated to cripple or retard its progress should be avoided.¹

Such material as we have for the period 1858-1860 shows that there was a slow but steady growth; counties were better organized; schools were established and it would appear that the public funds were expended in the way least likely to emphasize the pauper school idea. The trustees went on the assumption that public funds should supplement private endeavor, and so successful was the scheme that we find, in 1858, an average school term of 6.125 months, while in some townships, as in Pickens County, the sixteenth section funds were sufficient to keep the schools open all the year.

No figures from the office of Supt. Duval are available after those of 1858, but their place may be supplied in part by those of the Federal Census for 1860:

Number of schools.....	1, 903
Number of teachers.....	2, 038
Number of pupils.....	61, 751
Amount derived from—	
Taxation.....	\$63, 845
Public funds.....	199, 318
Other sources.....	226, 311
Total income.....	489, 474

¹ See his message of Nov. 14, 1859, pp. 9-10 (copy in Curry Collection, not in H. and S. Jour. of 1858-59). These are substantially the identical words used by Gov. A. B. Moore in his message to the same legislature on Dec. 16, 1859. In S. and H. Jour. of that date.

There was reported in the same census 206 "academies and other schools," with 400 teachers and 10,778 pupils. These schools received—

From endowment.....	\$37, 800
From "public funds"	23, 547
From other sources.....	160, 287
Total income.....	221, 634

The same census reports a total school attendance for the year ending June 1, 1860, of 98,204, including 114 free colored, and that \$6,256 was collected in the State for schools.

Measuring the general intelligence by the circulation of the newspaper press it will be found that according to the census of 1860 it consisted of 9 daily, 1 biweekly, 6 triweekly, 77 weekly, and 3 monthly journals, with a total annual circulation of 7,175,444 copies. The white population of the State in 1860 was 526,431, which would indicate an average of 13.6 copies per white inhabitant, but since the number of outside papers coming into the State was no doubt much larger than those which went out, the true number of copies per inhabitant was considerably larger.

Supt. Duval's report for 1858 was the last printed till after the close of the Civil War, and the source material for the period is scanty enough, for those days of excitement told heavily on the quiet routine of educational work. Supt. Duval signed the official correspondence for April 9, 1861; then there is a break till May 20, when his chief clerk, W. C. Allen, signs as acting superintendent. Mr. Duval had gone to the front as captain of a company of volunteers. But even the clang of arms did not entirely hush the hum of educational activity. In August Mr. Allen said that Gov. Moore would recommend the withdrawal (in the future) of the State educational appropriation till the end of the war, but that there would be no other change for that year unless he should be able to declare a per capita school dividend of \$1.35 or \$1.40 instead of the \$1.30 declared "for the last two or three years." In 1861-62 the dividend was \$1.20 per capita; in 1862-63 it was \$1.10. In 1860 and 1861 the auditor's report shows that the total school expenditures were \$567,740, or \$283,870 per year; in 1862 it was \$231,774; 1863, \$268,731; 1864, \$233,978; 1865, \$112,783.

These sums do not include \$17,700 spent in 1860-61 and \$10,718.75 spent in 1861-62 on the military training of "State cadets." These expenditures were incurred under the act of February 21, 1860, which provided "for the military education of two young men from each county." They were to attend the Military School at Glenville, in Barbour County, or that at La Grange, in Franklin County, to both of which the State had furnished arms. They were to receive for their support \$250 a year, and for their part agreed to return to their own county "and there teach and drill the militia" for the same length of time as they had received State support in school.

There was in Alabama, of course, as everywhere, trouble over the falling value of Confederate notes, and much correspondence with local officers on the subject. Capt. Duval was again in his office March 14, 1864, but sterner military duties called him elsewhere, and W. C. Allen served as superintendent for the remainder of that year, being succeeded in office January 1, 1865, by John B. Taylor.

The correspondence of the superintendent during the war period is small in amount, broken and fragmentary in character, but sufficient to show that the schools did not lose their general organization. As has been shown from official sources, funds were distributed each year, reports were called for and schools were still being taught throughout the State as late as March, 1865.

Fortunately for the student of the educational history of Alabama, the official letter book of the superintendent for the whole of the war period (June 1, 1860, to April 25, 1865) has been preserved and has been made available for this study by the courtesy of Thomas M. Owen, LL. D., director of the Alabama State department of archives and history. It seems well to close this chapter with the transcription of four letters written in March, 1865, by Supt. Taylor that tell far more dramatically than mere narrative the difficulties and trials of the last days:

MARCH 1st, 1865.

To His Excellency,

Gov. THOMAS H. WATTS:

The revised school law of the State requires of the State superintendent of education annually on the 1st of March, a report to the governor, embracing—

First, A brief history of his labors.

Second, An abstract of the reports received by him from the county superintendents, exhibiting the condition of the public schools.

Third, Estimates and accounts of expenditures of school moneys.

Fourth, Plans for the improvement of the school funds and the better organization of the public schools.

Fifth, All such other matters relating to his office and to the public schools as he shall deem fit to communicate, etc.

At the time of my election to the office of State superintendent, my predecessor, Hon. W. C. Allen, had nearly completed the calculations for the distribution of the funds for 1864, and deeming it unwise and impolitic to take possession of the office until that was completed and the quarter expired, I did not file my bond and enter upon the duties until the 1st day of January, 1865. Consequently, the history of my labors would be very brief and unsatisfactory. Under this head I have nothing to report except an official visit to the County of Coosa, where I had the pleasure of meeting in county convention the superintendents and several of the teachers and trustees of that county, and to initiate an undertaking which I hope will result in furnishing our public schools with abridged textbooks to supply a want now severely felt by parents and teachers.

The reports of the condition of the public schools for the year 1864 have been received from only 15 counties, leaving 37 counties unreported. Many causes have occurred to prevent their reception. Many teachers have been called into the military service and made no reports to the county superintendents; others have neglected their duties; in some instances I am informed of changes in the office of county superintendent during the month of January, and in others, I am assured that the reports

have been mailed and failed to reach this office. All the county superintendents, not within the enemy's lines, have been informed by letter of this default, and duplicate or original reports may be expected. Without the missing reports it is impossible to approximate the conditions of the public schools within the State.

And as plans for the improvement of the school funds and the better organization of the public schools are expected to be submitted in the report of the State superintendent and must be based upon the reports received from the county superintendents, and as this report is intended to furnish information to superintendents and trustees and the authorities of other States of the actual working of our State system of education, and as under the circumstances named it must necessarily be imperfect and unsatisfactory, I therefore submit this as a partial report and respectfully ask your Excellency's permission to complete the same at some future period before the session of the general assembly, when with more reliable and fuller data, more satisfactory information can be given and the suggestions contemplated by the law can be made upon a reliable basis.

I would beg leave further to state to your Excellency that the reports made by my predecessors bear date of the month of October, ever since the passage of the act of 1856.

Very respectfully, your obdt. servt.

JNO. B. TAYLOR.

MARCH 11TH, 1865.

W. H. HUSTON, Esq.,

Co. Sup't, Dallas Co., Selma, Ala.

DEAR SIR: I am much gratified to learn from your letter of the 8th inst. that the absorbing and engrossing interest of the times and the perilous condition of the country have not retarded the educational interests of the populous and wealthy county which you represent, and that parents evince an "enthusiastic interest in the education of their children." Of a truth "Carpe diem" should be the motto of our people at this time, for "we know not what a day may bring forth," nor how soon present advantages may pass away before the invasion of a ruthless foe, or how even their sons may be called away from the pursuits of learning to the more immediate and pressing necessity of defense.

I trust that the wisdom of Congress may adopt some plan whereby disabled soldiers and officers, unfit for duty in the field, may be retired, and thus competent instructors from among the educated take their places as instructors of the rising generation. An accomplished officer, formerly a teacher, and now himself maimed and unable to resume his command, informed me that there are many such now spending their time in idleness or assigned to duties for which they are incompetent. He also stated that he had mentioned the matter to Members of Congress and that he hoped they would take such action as would lead to beneficial results. Let us then wait in hope.

I am pleased with your plan for procuring schoolbooks and trust you will meet with eminent success. It should certainly be adopted in every county when practicable, and has been acted upon to some extent by the booksellers of this city.

Prof. B. T. Smith, of Central Institute, is now engaged upon an abridged arithmetic for the use of public schools and has completed the work as far as division. When that is completed I shall request him to publish, if a publisher can be obtained, leaving the remainder for a future edition. This part will answer for primary classes and will supply a present want. If encouraged in this undertaking, the professor will enter upon abridgments of other schoolbooks. * * *

You will oblige me by giving me notice of the time and place of holding your county convention. It is my desire to visit as many as the limited time at my command will permit.

Very respectfully, yours,

JNO. B. TAYLOR,
State Supt.

MARCH 14TH, 1865.

To His Excellency, THOMAS H. WATTS,
Governor of Alabama.

GOVERNOR: I have the honor to call your attention to the inclosed copy of a letter from Col. Jefferson Falkner requesting the discharge of Harman R. Gay, corporal in Company K, 46th Ala. Vol. Regiment, in consequence of his election as county superintendent of education for Randolph County.

Mr. Gay was duly elected in May, 1864, and gave bond, which is on file in this office, as required by law. I understand your excellency to recognize to the fullest extent the right of the citizens of the State in the election of their officers, and yet if the officer of their choice is detained in the military service, the exercise of that right is of no avail and of no practical utility.

The authorities of the Confederate Government do not pretend even to claim military service from State officers not enrolled at the time of election and their exemption from such service is provided for by law.

The reason for this exemption, founded in the principle of State sovereignty, and the unqualified and unrestricted right of the people to the choice of their officers, applies, to my mind, with equal force in those cases where parties are, at the time of election, held in the military service of the common government.

But if doubt exists upon that point, comity and courtesy as between the Confederate and State Governments would require that the expressed will of the people should be respected and that they should be allowed the services of the officer of their choice in any capacity in which they may elect; and this without regard to the rank of the office or distinction of station. That this has been the view of the Legislature of Alabama is apparent from the fact that there is no provision of law whereby an office may be declared vacant by reason of the incumbent being in the military service of the State or of the Confederate States, though it may be for several other reasons.

The office of superintendent of education for the several counties in this State can not be discharged by deputy; and while the payments of the school fund to the trustees may be made by a clerk, the receipts of money from tax collectors and the State treasury, examination of teachers, granting of licenses, annual visitation of schools, and decision of questions arising under the school laws must be done and made by the superintendent in person, and can not be delegated by him to others; nor does the law make any provision for the discharge of those duties by another while the incumbent is in military service.

I would, therefore, respectfully request that your excellency would refer this case to the Hon. Secretary of War and ask the discharge of Corp. Gay from the military service, that he may enter upon the duties of his office. To judge by the returns now being made to this office and the information received from various parts of the State, the children of our gallant soldiers are not to any large extent enjoying the benefits of the provisions made by the State for their education by reason of irregularities, such as is seen in the present case, and which can only be corrected by a vigorous application of means at command, and the evil of an ignorant generation succeeding this arrested. A prudent government will seek its defense and safeguard in the hearts of an intelligent people.

I am, very respectfully, your obdt. srvt.,

JNO. B. TAYLOR,
State Supt.

MARCH 22ND, 1865.

To His Excellency THOMAS H. WATTS,
Governor of Alabama.

GOVERNOR: I have the honor to inclose a communication from Hon. James F. Bailey, judge of probate of Perry County, requesting my attention to condition of the public schools in that county in consequence of the detention in the Confederate

States military service of M. M. Cooke, county superintendent of Perry County, and asking that steps be taken to procure his discharge.

Mr. Cooke is 1st sergt., Co. G, 4th Ala. Vol. Regt., and was elected county superintendent in May, 1864, and gave bond and duly qualified for the performance of his office, but though, as I am informed, two applications have been made for his discharge, he is still retained in service to the detriment of the educational interests of his county.

On the 14th instant I had the honor to address your excellency a similar application in respect to Corp. Harnen R. Gay, Co. K, 46th Ala. Regt., elected and qualified as county superintendent of Randolph County, and herewith I forward a copy of your excellency's indorsement upon that letter, satisfied that your views, being fully matured, have undergone no change, and that the same principle therein asserted by your excellency fully applies to the present case.

I am also informed in the case of Mr. Cooke that he has been wounded in the leg and in consequence of that wound is partially, if not wholly, unfit for field service.

The educational interests of Perry County are suffering from the absence of the superintendent, and if the condition of that and Randolph County should become general throughout the State, our educational system must be abandoned and the children of our soldiers grow up in ignorance.

I respectfully request that your excellency will use your official influence with the Hon. Secretary of War to procure the discharge of Sergt. Cooke, that he may enter upon the duties of his office.

Very respectfully, your obdt. servt.

JNO. B. TAYLOR,
State Supt. of Education.

The remainder of this war history and the fortunes of the public educational records themselves may be gathered from the Hon. John B. Ryan, State superintendent in 1866-67, in his report dated April 1, 1866:

There has been no annual report made from this office since October, 1859,¹ yet our system of public schools was kept up till the appointment of the provisional governor in July, 1865, although amidst embarrassments incident to a state of fierce warfare. The records, books, papers, etc., of this office were carted about the country in boxes, to keep them from the hands of spoilers, during the most of the time after 1863. Their preservation is chiefly if not alone due to the vigilance, zeal, and activity of my worthy predecessor, the Hon. J. B. Taylor, to whom the friends of education in Alabama should ever feel grateful.²

¹ This was Duval's report for 1858.

² Report for 1865 quoted in Owen's Bibliography of Alabama.

Chapter VIII.

RECONSTRUCTION IN THE PUBLIC SCHOOLS, 1865-1876.

I. THE INTERMEDIATE PERIOD, 1865-1868.

The war came to an end in May, 1865. The reconstruction government in Alabama was inaugurated July 13, 1868. This intermediate period of three years—a period not of the old nor yet of the new—is largely barren of educational results, although demanding some consideration from the historian of education. A convention sitting in Montgomery adopted on September 12, 1865, a new constitution. This convention was made up of Confederates and other native sons, and their work was not submitted to the people. There is no mention of education in this constitution, nor are there complete printed reports from the State superintendents for the period. Information on the subject comes mainly from later superintendents. As has been seen, John B. Taylor became superintendent on January 1, 1865, and served in that capacity until about April 1, 1866. He was succeeded by John B. Ryan, who served till November 30, 1867. Then came M. A. Chisholm with service from December 1, 1867, to July 23, 1868, when reconstruction began.

Of the period represented by the school years 1865-66, 1866-67, and 1867-68 (June 30), Dr. Cloud, in his first annual report dated November 10, 1869, says:

I found that the previous government under the administration of Gov. Patton failed to pay the public-school money apportioned for the school year 1866 to quite a number of the counties of this State. It also failed to pay the public-school money apportioned for the school year of 1867 to a much larger number of the counties. Some of the county superintendents received the public-school moneys thus apportioned for the years 1866 and 1867, either in part or in whole, as our books show; but others received none whatever notwithstanding public schools were taught. There seems to be no satisfactory reason to be had from any source explaining why it was that some of the counties received their apportionment of these public-school funds, while others did not obtain any portion thereof.

The superintendent * * * takes the position that the apportionment of the public-school fund for the years 1866 and 1867 was appropriately made under existing laws of the State, and that the State is bound in all good faith to her citizens to make good this apportionment of the public-school fund to the counties that have up to this time failed to receive it or so much thereof as may be necessary to pay the school service rendered in such counties for the school years of 1868 and 1869.

So much for Dr. Cloud's review. Now, what were the original appropriations for these years, how much of these sums were used by Gov. Patton "to meet other pressing debts of the State," how much did the reconstructionists appropriate to cover these deficiencies, how did they order this money to be used, and what actually became of it?

The total apportionment for 1866 was \$413,389.07, of which \$362,223.60 was drawn and \$51,625.09 undrawn. In 1867 the figures were \$290,250.12 apportioned, \$133,195.83 drawn, and \$157,054.29 undrawn. The sum apportioned for schools December 1, 1867, to July 1, 1868, was \$45,411.46. On November 10, 1869, there was still unpaid out of these three appropriations \$254,090.84. On October 10, 1868, the reconstruction legislature provided \$45,411.46 to meet—

the claims of teachers arising between December 1, 1867, and June 30, 1868, * * * which it was doubtless believed at the time the bill was introduced would cover all just and legal claims embraced within the period.¹

February 23, 1870, it passed another act—

appropriating the sum of \$208,679.38 to cover the several amounts due and unpaid to those counties whose school moneys had been used by Gov. Patton to meet other pressing debts of the State.

The act provided that this money should be disbursed "in accordance with the law under which the said amounts were apportioned at the time of apportionment," and then adds that the provisions of this act should "be so construed as to include all teachers who have taught a free public school and have claims against the State without distinction on account of race or color."²

Supt. Cloud had already decided officially (June 26, 1869) that under the law negroes were entitled to their share of the sixteenth-section fund,³ and the purpose of this particular act to admit the teachers of negro schools to a participation in the fund about to be distributed is manifest. Says Supt. Joseph Hodgson (Conservative), in his report dated January 28, 1871:

This sum of \$208,679.38 * * * was apportioned among the counties by the late superintendent (Dr. Cloud) according to the amounts certified to be due. * * * In what manner this money has been disbursed by the county superintendents the present State superintendent is not fully informed. * * * It will be observed that the act making the appropriation fixes a proviso to it, a proviso which is doubtful, because the fund was justly due to those teachers alone who were employed under the then-existing school laws. The proviso read thus: "That the provisions of the foregoing act shall be so construed as to include all teachers who have taught a free public school and have claims against the State, without distinction on account of race or color." The purpose of this proviso must be transparent. There were no colored teachers of State schools before July, 1868, and no colored

¹ See acts of Oct. 10, 1868, Laws of 1868, p. 255; and act of Feb. 23, 1870, Laws of 1869-70, p. 168.

² See acts of 1869-70, p. 169.

³ See official letter book under that date.

pupils except such as were recognized by the military commander between January and July, 1868; yet, as will presently be seen, an opportunity has been given for the misappropriation of this entire fund.

In discussing the payment of these past-due claims, including those for teaching December 1, 1867, to July 1, 1868, Supt. Hodgson says further:

The superintendent can only say that under his predecessor the above-mentioned sum of \$45,411.46 was distributed to the several county superintendents without reference to the amount of unpaid claims held in any given county, but in proportion to an enumeration of white and colored children made in 1869. It is with reluctance that he has been driven to the conclusion that the acquisition and distribution of this sum of \$45,411.46 and the larger sum appropriated for the years 1866 and 1867 [\$208,679.38] is the result of a deliberate scheme to divert the public-school funds of the years 1866, 1867, and 1868 from their legitimate use and for the benefit of private schools which were established and conducted for private gain or for the promotion of political and sectarian ends.

Supt. Hodgson bases this conclusion on a certain enactment of the State board of education, the intention of which—

was evidently to give a color of authority to the newly appointed county superintendents for the disbursement of public money to private schools of a certain character. Under cover of this act large sums of money which had been turned over by township trustees to the new county superintendents, as also the several appropriations referred to, were squandered upon teachers of private schools who were in no wise connected with the public-school system, and who had already received pay from their patrons for their services.

Specific instances are given by the superintendent: The county superintendent of Montgomery County paid himself \$1,692.60 for teaching a private school, and his account was allowed; and there was paid to a colored institution in Mobile at one time the sum of \$5,327 and at another \$5,425, although it was under the support and control of a missionary society and its teachers had already been paid by that society. Up to the date of this report there had been paid out of this \$45,411.46 only \$9,019.02 of legitimate claims.

Supt. Hodgson failed to secure any further information on the subject, and adds:

It is probable that the great bulk of that fund has not been and will not be applied to the object for which the general assembly appropriated it. Such is one of the evil results of having two legislatures over this department. The disbursing legislature runs counter to the spirit of the appropriating legislature, and the State superintendent remains powerless to provide a remedy for transparent abuses.¹

The protest of the superintendent was in vain, for so far as available sources show there was no further investigation of these arrears nor of the way they were expended. According to his report on November 15, 1871, of these special appropriations \$114,782.88 was still to be accounted for.

¹ This refers to the new board of education, considered later.

II. THE OLD RÉGIME AND THE NEW, 1868-1872.

The constitution of 1868 was adopted by a convention which sat in Montgomery November 5 to December 6, 1867. This is the reconstruction constitution; it was submitted to the people and ratified February 4, 1868. Like that of 1819, it makes formal recognition of education as a part of the duties of the State, but it is sharply differentiated from the earlier document and from all of its own day, except one, by the creation of a new and distinct governing authority in education. It placed the common school and the public educational institutions, including the university, under the management of a new board, styled the State board of education, of which the superintendent of public instruction was declared president, the governor an *ex officio* member, and to which were added two elected members from each congressional district. It was given authority—

to exercise full legislative powers in reference to the public educational institutions of the State, and its acts, when approved by the governor, or when reenacted by two-thirds of the board in case of his disapproval, shall have the force and effect of law, unless repealed by the general assembly.

The constitution said further:

It shall be the duty of the board to establish throughout the State, in each township or other school district which it may have created, one or more schools, at which all the children of the State between the ages of 5 and 21 years may attend free.

It recognized the old educational fund of ante bellum days, declared it to be a "perpetual fund," and in addition to these sources donated to education "one-fifth of the aggregate annual income of the State." The assembly might give power to the local authorities to levy a poll tax, and "a specific annual tax" was to be levied—

upon all railroad, navigation, banking, and insurance corporations, and upon all insurance and foreign bank and foreign exchange agencies, and upon the profits of foreign bank bills issued in this State by any corporation, partnership, or persons—

to be devoted exclusively to the maintenance of public schools.

The new régime began July 13, 1868, with the meeting of the general assembly, the ratification of the fourteenth amendment, and the inauguration of W. H. Smith as the first reconstruction governor. One of Gov. Smith's first acts was to appoint Dr. N. B. Cloud, who had been more or less in public life under the old régime, as superintendent of public instruction (served till November 23, 1870). On the same day the new State board of education met for its preliminary organization.

The new school system itself did not differ greatly from the ante bellum one, except that the new constitution declared the schools to be entirely free. It was top-heavy, however, with the number and character of its administrative officers, who either from design or

otherwise were to absorb a large share of the public funds before they reached the schools. The stream could rise no higher than its source, and Dr. Fleming characterizes the school officers appointed by Dr. Cloud as "a forlorn lot." One signed for his salary with an X mark; another was of bad morals and incompetent; another was a preacher who had been expelled for misappropriating charity funds.¹

One of the earliest acts of the new reconstruction legislature was to transfer to the board of education control of unexpended school funds in the hands of school officers and to authorize an investigation of these funds by the new county superintendents who were then being appointed by the State superintendent. It also chartered lotteries, on condition that they pay an annual tax to the school fund. The Mutual Aid Association, whose object was "to distribute books, paintings, works of art, scientific instruments," etc., was to pay \$2,000 annually; the Mobile Charitable Association was to pay \$1,000. The office of commissioner of lotteries was established and his duty was to levy and collect 1 per cent "on the gross amount of sales or the gross income of the business of all lotteries now authorized or that may hereafter be authorized by law in this State."

Other laws were passed to make more thorough the transfer of the school machinery to the new authorities, and it was ordered that the public schools should be opened by October 1, 1868, "as far as practicable." Eleven normal schools were established, the expenses of which were to be paid out of the general school funds, and a law was passed "to secure cooperation with the Bureau of Refugees, Freedmen, and Abandoned Lands." This law provided that the State superintendent should act on the "general understanding" that (1) the bureau was to furnish school buildings; (2) the missionary associations were to select and transport competent teachers to the scene of their labors; (3) the State was to examine and pay these teachers; and (4) the superintendent was to secure the transfer to the State of schoolhouses controlled by the bureau.

Another act, general in character, defined the rights and duties of the State superintendent, the county superintendent, and the local teachers. These did not differ in essential detail from those in earlier laws. But it should be noted that the races were to be kept entirely distinct, "unless it be by the unanimous consent of the parents and guardians of such children."

For its part the board of education began with an abundance of legislation, but it is difficult to say how many of these laws got into school practice. Some were in advance on the old order, e. g., requiring reports on school moneys; furnishing schoolhouses and defining more exactly the duties of school officers; providing for certain city systems; fixing the grade of teachers, and providing for

¹ See Fleming: *Civil War and Reconstruction in Alabama*, (1905), p. 409.

teachers' examinations and for normal schools; defining the scholastic year; and defining and establishing grades in the schools. These grades were fixed at four, and the subjects to be taught were outlined.

With these rules and regulations the new school system went into operation with Dr. Cloud as State superintendent, and the reconstruction State board of education endowed with the power of legislation. The real difficulties of the schools during this period fell into one of two general categories. In the first place, it was difficult to secure local officers to administer the law; for the Conservatives naturally stood in a hands-off attitude. The second difficulty was no less serious. The constitution provided that the school should be absolutely free, and while the available funds were not sufficient to secure this, no tuition might be charged. As a result of this dilemma, the schools established were neither sufficient in number to serve the State nor long enough in term to serve the children. Or, as Supt. Hodgson put it in 1871:

The result of this rule was that a large number of schools were opened, but they were generally schools which accomplished nothing. There were too many pupils for the teachers, and too many teachers for the fund. The sum total of schools and pupils made a large show upon paper, but the school was generally closed before the pupil had time to learn the alphabet.

It does not appear that there was much serious opposition to the schools. It is true that Dr. Cloud complains loudly of "idle politicians" and "disappointed newspaper editors" and prints letters from five county superintendents "detailing the character and extent of trouble and opposition they had in the appointment of trustees," but this was mere politics, directed more at the men in authority than at the system, and Dr. Cloud said that after his opponents had had "their minds disabused" of "blind prejudice" they became "friends and warm supporters of the system" and hailed it as "a great national benefaction." What opposition there was grew largely out of the old ante bellum idea of hostility to "free" or "pauper" schools. The leaders of this wing were not friendly to an education that was given away, and this hostility was intensified by the requirement of the new constitution that the schools should be entirely free and no longer supplemented by private contributions and subscriptions as had always been the case in Alabama up to 1868. This requirement, indeed, acted as a two-edged sword. By forbidding these supplementary contributions it increased the number of those opposed to public education, and at the same time made the system less able to furnish free instruction. When the Conservatives came back into power in 1870, the old idea of supplementing public funds with private subscriptions was revived.

As for the education of the negroes, there was little opposition to that as such. The old slaveholders believed it to be necessary for

the good of society. The Democratic party favored it; Gen. Clanton, the chairman of their executive committee, made speeches supporting it; Gen. John B. Gordon, Hon. J. L. M. Curry, Col. Jefferson Falkner and Ex-Gov. A. B. Moore were all its advocates. The Montgomery Advertiser and other papers even urged that destitute whites and disabled soldiers be employed as teachers. Confederate soldiers and Confederate widows taught negro schools, and the old school board of Mobile was organizing negro education in that city before the system of reconstruction was born.¹

The story of the struggle in the city of Mobile between the old régime and the new is interesting and highly dramatic.

In Mobile, it will be recalled, throughout the whole period after 1826 a separate school organization had been maintained, free from all State trammels. Progress had been made there beyond all other sections of the Commonwealth, and the efforts of the reconstructionists to bring this independent system under State control precipitated a struggle that lasted as long as reconstruction itself. The Mobile schools had survived the greater part of the war; they had closed only with the Federal occupation in April, 1865, and had opened again in the fall of that year, but on a more restricted scale and with moderate charges for tuition to supplement decreased public funds. The receipts for the year 1865-66 were \$35,017.16, of which about \$22,000 was from tuition charges.² The expenses for the same time were \$44,191.86. For the year 1866-67 tuition fees were reduced one-half, and a movement for the education of colored children started as early as May, 1867. Mr. Clark, for the school committee, then reported that he had been in communication with the local superintendent of the Freedmen's Bureau who expressed gratification at this manifestation of local initiative on the part of the old conservative element, and that \$12,000 had been provided by the bureau for a schoolhouse for colored pupils. The local board also sought to work in harmony with the American Missionary Association. For the year ending July 31, 1868, their total receipts, including tuition fees and money borrowed, was \$64,835.29, and their total disbursements \$62,180.86.

From this account, abbreviated from the History of Education in Alabama by Willis G. Clark, a writer who for this part of the story is an original authority, we must conclude that the Mobile schools were slowly recovering from the effects of the war; that their local finances were improving; and that they were again headed in the direction of a public school system which should be entirely free. We note further that under liberal and progressive leadership these

¹ See Fleming: Civil War and Reconstruction in Alabama, pp. 623-631.

² An act of Feb. 9, 1866, allowed Mobile to levy on each \$100 of property valuation a 5-cent tax for suitable houses, libraries, and apparatus.

school commissioners, though Conservatives, had voluntarily taken up the subject of educating the negro, and were making progress. It was into this scheme of harmonious development that the reconstructionists broke.

The reconstruction government had gone into effect July 13, 1868, and by an act of August 11 the new State board of education declared vacant all offices of county superintendents, township trustees, and school commissioners. Dr. Cloud, the State superintendent, then proceeded to the task of filling these offices with men of his own selection, and on August 18 appointed George L. Putnam county superintendent of Mobile. The old Mobile board of school commissioners had been appointed originally under military authority. They now proceeded to act on the assumption that the acts of the legislature and of the State board of education were illegal, as far as they were concerned. Putnam appeared before them demanding recognition as county superintendent, but "not having filed a satisfactory bond, as required by law, the board did not inquire further into his authority or the legality of his appointment."

The war was now on between the Mobile school commissioners, made up of both Republicans and Conservatives, on the one hand, and the board of education, the State superintendent, and the Mobile county superintendent on the other. Compromises were proposed and rejected. Then recourse was had to the courts, and a mandamus was secured ordering the school commissioners to surrender the books and property in their possession. This they refused to do, and they were held in prison for 48 hours where they were "the recipients of innumerable courtesies and attentions from the officers of the jail and the citizens of Mobile generally." The supreme court decided in their favor; they were released, and the school year of 1868-69 conducted under their direction showed a white school enrollment of 2,417 and a negro enrollment of 919. In the first round they had had all the advantage. But the State officers were plucky and had other weapons in reserve. On June 30, 1869, the State superintendent formally suspended the Mobile school commissioners, and on August 19, 1869, his action was approved by the board of education. They had still one other weapon. Under the law as it had existed substantially since 1826, Mobile had its own school organization, collected its own taxes, and was expressly excepted from being amenable to the State authorities except to the extent of drawing its quota of State funds and making reports. But the constitution of 1868 had given to the State board of education "full legislative powers" in reference to the public educational institutions of the State, and on November 19, 1869, an act was passed by the board repealing the law which gave special immunities and powers to the school commissioners of Mobile. By this bold stroke the board disarmed its rivals

and at once made itself master of the educational situation in the State. After the passage of this act the State authorities refused to pay over to the Mobile school commissioners the proportion of the school moneys due them from the State. The State superintendent, though he had vacillated and sought to heal the breach by appointing a county superintendent agreeable to the board of school commissioners, now recognized Putnam as county superintendent and paid him considerable sums out of State funds.¹ As a last resort the old school commissioners sued out an injunction against Putnam and sought to prevent him from collecting the money on these State warrants. The case came up before the supreme court in June, 1870. In a long and elaborate opinion, in which the whole history of the Mobile school system is reviewed at great length and the more recent educational legislation of the State reviewed and examined, the contentions of the attorneys for the school commissioners were rejected in toto and the injunction dissolved. After the announcement of this opinion, the school commissioners, disheartened and broken, defeated at every point, surrendered the school property to Putnam. Viewed from this distance and in the cold light of history, it would appear that whether the law was good or bad was immaterial; it was the law and was clearly on the side of Putnam; for, if words mean anything, the old board of school commissioners was clearly removed from office by the act of August 11, 1868, and all of their subsequent actions were illegal. On the other hand, it is just as clear that, had the reconstruction authorities kept hands off in Mobile, the progress of education would have been immensely advanced. The new system was forced on the people and maintained over them, but it was not welcome, and progress was slow. Putnam remained at the head of the schools till the spring of 1871. Indeed, it would seem that he did not release his claims to be county superintendent till November 24, 1874, for on that date we find John M. McKleroy, State superintendent, invoking against him the very weapon he had used against the old board, for he was then, with the consent of the board of education, formally removed from office as superintendent on the ground that he had not filed his bond "as required by law" and that the "public welfare" did not demand that "any change should be made in the county superintendency."

¹ The matter was thrashed out by the judiciary committee of the assembly of 1870 who reported that through the "illegal conduct" of Cloud and Putnam the latter had obtained on January 29, 1869, between \$5,000 and \$6,000, and "by far the greater portion thereof was unlawfully applied, if not the whole amount thereof was illegally used," in paying certain teachers and employees of the "Blue College" in Mobile which was then conducted by the American Missionary Association; that in July, 1869, Putnam secured a warrant for over \$9,000 which he was restrained by injunction from collecting; that he received \$2,000 or more for lawyer's fees; that he received \$3,600, "a part, if not all of which, was illegally used or applied." They found also that unreasonably high salaries had been allowed. They recommended the abandonment of special school legislation as soon as possible; the passage of a law forbidding any person from holding more than one office in the entire school system; the adoption of a uniform compensation for all county superintendents and a general reduction in the pay of all officials, for these were partaking "too much of the quality of a sponge to the amount of funds raised for school purposes."—See Report of Judiciary Committee, 1870.

This action had been made possible by a partial defeat of the Republican Party in 1870, when the Conservatives again secured control of the State superintendency (Nov. 23, 1870). They then began a reorganization of the State board of education and at once passed a law (November, 1870) giving Mobile the right of electing its own superintendent and school commissioners. In this way, says Mr. Clark, the old—

order was gradually restored and the schools were placed once more in good working condition. There was still a board of commissioners, but they had little power under the law and, practically, were simply advisers of the superintendent. The board, however, was made up of some of the best citizens of Mobile County.

With the constitution of 1875 Mobile again attained the degree of autonomy which she had enjoyed in ante bellum days, since by that instrument she was again declared independent of the State system except as to drawing her quota of State funds and making reports. These privileges were formally recognized in the general reorganization act of February 8, 1877.¹

After this digression into the history of education in Mobile, which clearly illustrates the difficulties the system was forced to encounter because of politics, it is possible to turn again to the State system and consider its sources of income.

These were, besides the income on the old perpetual (paper) fund, including also certain fines, licenses, donations, and taxes from corporations:

1. A poll tax on all males 21 to 45 years of age. (Constitution.)
2. A special county tax of 10 cents on \$100. (Revised Code, sec. 992.)
3. An annual donation from the State of \$100,000 under section 957 of the Revised Code.
4. One-fifth of "the aggregate annual revenue of the State." (Constitution.)

But as already seen, these sums were not enough to establish successfully a State system of free schools; nor were funds from all of these sources immediately available. For the school year October 1, 1868, to September 30, 1869, the funds were divided as follows:

Balance due and appropriated as per act of Oct. 10, 1868.....	\$200,000.00
Interest on sixteenth section fund, at 8 per cent.....	136,812.59
Interest on valueless sixteenth section fund, at 8 per cent.....	7,967.30
Interest on surplus revenue fund, at 8 per cent.....	53,626.94
Amount received from retail licenses.....	26,514.85
Appropriations as per the code, section 957.....	100,000.00
Total.....	524,621.68

¹ See Cloud's account of this contest in the appendix to the Report of Supt. Pub. Instruction for 1869; also in Journal Board of Education, July and August sessions, 1869. The side of the school commissioners may be seen in Clark's History of Education in Alabama, Washington, 1889, based on The Board of School Commissioners and the Public School System of the City and County of Mobile, 1869. See also 44 Ala. Sup. Ct. Reports, case of Mobile School Commissioners v. Putnam et al., and the Report of the Judiciary Committee (1870).

As was to be expected, the weakness of the system and the inexperience of its administrators were soon manifest. The legislature had levied no tax on property and no poll tax for school purposes, but depended on the earnings of the perpetual (paper) fund and on the \$100,000 straight appropriation from the State; the superintendent's office was slow and did not publish its county apportionments for the school year 1868-69 till June, 1869. In the meantime the county school officers had opened schools and employed teachers in utter ignorance of what was coming to them from the State. The inevitable followed. Says Supt. Cloud, in reviewing the work of the year:

There are many most excellent and worthy teachers, both gentlemen and ladies, in almost every county of the State who have failed to receive full pay for their services in the free public schools—some for one month, some for two months, and some for even more—from the fact that when the delayed apportionment went out to the county superintendents it was found that the amount of teachers' salaries for services already rendered was greater than the apportionment to the township in which such schools were taught. Then the practice was with the county superintendents to scale down the accounts of these teachers, pro rata, to fit the apportionment.

The total expenditures for the year were more than \$502,156.19, which sum had been disbursed up to the time Dr. Cloud made his report. He was negligent in his statistics; his successor furnishes figures for him. Mr. Hodgson, in his special report in 1871, gives the number of schools in 1869, as by estimate, 3,225, and the pupils enrolled as 160,000. The amount expended for county administration and supervision was \$75,173.92, which was chargeable against county funds. The superintendent reports 2,902 teachers and nine normal schools with 300 prospective teachers who were being trained at an annual cost of \$12,000. These normal schools seem to have been really normal classes in connection with other institutions. Tuition fees were paid by the State in return for a promise to teach for two years in the public schools. It is evident that they did not appeal to the Conservatives:

It is not known by the superintendent [Hodgson] what progress has been made by these pupils, what interest they exhibit in learning, what assurance the department had as to their capacity, intellectually or morally, or whether any of them were prepared, during the year 1869, or the year 1870, to assume the duties of teacher, or whether any of them actually entered upon such duties. The subsequent abandonment of the schools, it is fair to presume, has resulted in a loss to this department of \$12,000 for the year 1869 and \$25,000 for the year 1870.¹ It was an unwise policy to have established such a number of normal schools at the outset.

Another accomplishment of the reconstructionists—one in which they again came into antagonism with the old decentralized, independent system of the earlier days when every community was a

¹ The exact cost was \$16,582.10.

law unto itself—was in the adoption of a State system of textbooks. The books adopted included Parker and Watson's Readers, Davies's Arithmetics, Monteith's Geographies, Clark's Grammars, Monteith's and Willard's Histories, and others.

Dr. Fleming, in his Civil War and Reconstruction in Alabama, says (p. 623) that this adoption was the work of Dr. Cloud and that the texts were "objectionable to the majority of the whites." Dr. Fleming adds further:

This was especially the case with the history books, which the whites complained were insulting in their accounts of southern leaders and southern questions. Cloud was not the man to allow the southern view of controversial questions to be taught in schools under his control. About 1869 he secured a donation of several thousand copies of history books which gave the northern views of American history, and these he distributed among the teachers and the schools. But most of the literature that the whites considered objectionable did not come from Cloud's department, but from the bureau and aid society teachers, and was used in the schools for blacks. There were several series of "Freedmen's Readers" and "Freedmen's Histories" prepared for use in negro schools. But the fact remains that for 10 or 15 years northern histories were taught in white schools and had a decided influence on the readers. It resulted in the combination often seen in the late southern writer—of northern views of history with southern prejudices.

For the work of the school year 1870, which in reality covers the period from October 1, 1869, to January 1, 1871, we must look not to Dr. Cloud, who was in authority till November 23, 1870, but to his successor, Col. Hodgson. The white schools were reported as 1,355 in number and the colored as 490, making only 1,845, as against an estimated total of 3,225 for 1869. The white children numbered 229,139; the negro children, 157,918; total, 387,057. This gave an apportionment of \$1.15, as against \$1.20 per child for 1869. There was apportioned \$464,496, but at the end of the year \$99,825.27 was still undrawn, although "teachers have been clamorous for their pay for months." Why this decay in school interests and sharp decline in the number of schools and in payment of teachers? It is impossible to assign a more satisfactory reason than that given by Hodgson, who says it was due to the "numbers of incompetent men" who were appointed "as county superintendents in 1868" and were "either ignorant, dilatory, or unmindful of their plain duties." He points out also that when he came into office \$145,783.49 of the regular appropriations for schools for 1868-69 and 1869-70 were still to be accounted for.

The assembly which met in November, 1870, being conservative in politics, appointed a commission "to examine into and report upon the affairs in the offices of the superintendent of public instruction, auditor, and State treasurer." They had no criticisms on the last two officers, but of the superintendent of public instruction they report that there was "want of any organized system of keeping

the books" and that the books then used "had not been posted during the whole scholastic year." They found erasures in the accounts of one county and that in two others certificates had been allowed without sufficient proof that schools had been taught. Dr. Cloud was charged with paying out money "without due regard to the interest of the State," but the committee was impartial enough to say he had done this with the consent of the attorney general.

It appears that the new governor went beyond this mild criticism, for he refers to the report as showing—

not only an unsatisfactory, but a most shameful and reprehensible state of things. The facts set forth by the commissioners are surely a stern condemnation of the management of our educational system during the past year.¹

With the election of 1870, the accession to the superintendency of a Conservative, and the subsequent reorganization of the board of education, the reconstruction period in education practically comes to an end, although another reconstruction superintendent was in office in 1872-1874, and the machinery of administration was not changed till the adoption of the new constitution in 1875. What success did Conservatives have with the reconstruction machinery? A review of the next few years will give answer.

The first Conservative superintendent was Col. Joseph Hodgson, who succeeded to the office November 23, 1870, and served till September 30, 1872.

The law of November, 1870, restored a degree of self-government to the school organization by providing that in March, 1871, the counties should elect a county superintendent of education and two directors and that in April there should be elected in each township three trustees. This was a return toward the old order and was of service, since it made available the best men in the State.

Serious efforts were made to inaugurate economy in administrative expenses—possibly sometimes at the cost of efficiency; so that when compared with 1870 the cost of county superintendents was found to have been reduced from \$57,776 to \$34,259, and their expenses from \$21,202 to \$4,752. Thus in the matter of school disbursements the saving was \$39,969.86. And when we consider the total administrative cost, we find it reduced from \$86,123.82 in 1870 to \$44,588.21 in 1871, or a saving of \$41,535.61.²

Reforms were also urged in the manner of accounting, because it was found that \$260,556.37 drawn from the treasury since July, 1868, was still unaccounted for by vouchers and that \$211,217.79 in school warrants was unpaid.

¹ Senate Journal, 1870, pp. 84-89.

² See Hodgson's report for 1871. Against this must be set the fact, however, that the school year 1870 extended from Oct. 1, 1869, to Jan. 1, 1871; the year 1871 from Jan. 1, 1871, to Oct. 1, 1871.

In reviewing the school fund due and available, Col. Hodgson showed that a total of \$124,738.04 for the years 1868-69, 1869-70, and 1870-71 had not yet been certified to the local officers by the auditor; that \$211,217.79 in school warrants was unpaid September 30, 1871; and that the school funds for 1871-72 called for \$604,978.50, making a total of \$940,934.33 then due from the treasury to the schools, an amount so large that "at the present rate of taxation the entire revenue of the State will probably not reach this sum." The superintendent adds that, as a result of these demands—

at an early day in our scholastic year the treasury ceased cashing warrants in favor of county superintendents, and those officers were forced to raise money as best they could upon the State warrants, or to leave a portion of the claims of teachers unpaid.

As a relief for the teachers the superintendent suggested short-term bonds.

These strictures brought on a sharp clash between the State superintendent and the State auditor over the financial situation, as the former charged that the latter had been negligent in making up his estimate of educational expenses for the coming year. The latter, in his report for 1871, also discussed the situation and had his own explanation. According to the auditor, in 1871, the main trouble in administering the new law lay in the provision which allowed county superintendents to draw out of the State treasury in advance at the beginning of each quarter or at the beginning of the year all the money due the county.¹ It was used perhaps in the county by the superintendent or was kept in reserve until the end of the quarter, when it was paid out to teachers for services during the quarter. In this way it was liable to misuse and, if not misused, lay idle for the quarter, and so put the treasury to straits. Under the law the county superintendent might draw his whole year's apportionment in advance. Of this custom the auditor says:

Sound policy would dictate that no moneys be drawn from the State treasury until earned in the various townships, and when drawn by county superintendents, it should be for direct transmission to the teachers by whom it was earned. No county superintendent should be allowed to retain thousands of dollars, belonging to the State for the use of schools, for a term of months, especially when the treasury became embarrassed by such action.

The apportionment for 1871 was \$547,773.07, which produced a rate of \$1.33½ per capita of the school population. This year there were enrolled 141,312 pupils, with an average attendance of 107,666, more than doubling that of 1870. There were 3,321 schools, including 253 classed as high schools; there were 3,470 teachers; the average pay was \$42.60 per month, practically the same as in 1870; and the length of term was 66.5 days, an increase of 17.5 days over 1870. The two years, when compared, showed an increase of 17.25

¹ This clause was repealed in January, 1871.

per cent in available funds; 106 per cent in average attendance; and 35.71 per cent in length of school term. These facts clearly prove that the change in administration was highly beneficial to the schools, that funds were more carefully and more economically administered, and that the people were taking a heartier and more general interest in the schools.

But while there was progress and interest, economy and enthusiasm, there were still lions in the way. Perhaps no clearer conception of the situation and of its difficulties as a whole can be had than may be gathered from extracts from county reports:

The public generally are interested in the schools * * * 50 per cent better than last year. The people are very well pleased.—Baker County.

We have made the public fund auxiliary only, and the patrons are required to pay the teacher the principal part of his salary. This we have been obliged to do in order to keep the schools in operation long enough to derive some benefits from them.—Blount County.

Many of the children have to help their parents make crops, but are at school every spare day.—Lawrence County.

The schedule of studies has been changed in a great measure for colored pupils. I found pupils in the colored schools studying geography and grammar who could not write at all.—Mobile County.

The people are not satisfied with the present system; they wish it as it was before the war. There is too much reporting and trouble about it, as it is.—Shelby County.

The attendance at schools is good in these neighborhoods that want and will have schools, regardless of the public fund, but in other neighborhoods they attend so long as the public fund lasts, and sometimes stop before the fund gives out, for fear they will have something to pay.—St. Clair County.

Many people will not consent to pay anything to continue a school after the public fund is exhausted, and the consequence is the neighborhood is without a school, there being too few willing to pay to make up a school. * * * The colored teachers are poorly qualified. * * * Their patrons will not buy books and do not feel the importance of sending their children regularly to school. * * * In some townships the schools have been discontinued during the working season, and taken up again when crops are laid by, for those negroes who seem to appreciate education are working negroes and require their children to work also.—Talladega County.

These extracts clearly show that the schools were still bound down by political toils; teaching, which under Republican rule was considered highly discreditable, under Democratic administration became highly meritorious. We see also that many were still turning with longing eyes to the old decentralized type of school, but the extract from Lawrence perhaps gives the true key to the situation—the children were “at school every spare day”—education was as yet either an ornament or a luxury; it was not yet a necessity.

The superintendent points out another weakness of the State system as then administered, and shows that Alabama as a State was then—

attempting to do more for public instruction than her means will justify and more in proportion to her population and resources than any of the older and more populous States of the North.

This was clearly because the State did all. The superintendent sought to correct the abuse by a more stringent collection of poll tax and suggested a "resort, if the people vote to do so, to local taxation by vote of taxpayers in each school district, as is done in other States." He urged that the pay of county school officers be shifted from State to county funds and that "each county shall provide for its public schools a sum equal to one-fourth or one-half of the State appropriation." It is evident that the superintendent dimly realized that one of the defects of the public-school system in Alabama was that the local units depended on the State for nearly or quite everything. Local initiative was entirely wanting, and the schools languished because they had not yet learned the lesson of self help—a situation which "forward-looking men" in Alabama have not even yet been able to remove.

So far had the doctrine of centralization taken root in the Democratic State of Alabama in 1871 that even the few local taxes levied under the permissive law had to pass through the hopper of State machinery before they could be used by the county levying them. They were collected and forwarded to the State treasury, then at considerable expense and trouble they were returned to the county where they originated. With the poll tax it was worse still, for this was not only sent to the State treasury, but was then prorated—an encouragement to both ambitious and indifferent counties to do less and less. Against these conditions both auditor and superintendent protested, and urged the repeal of laws so destructive to local initiative.

Another trouble which confronted the schools was the imperfection of the law; salaries were at the caprice of trustees, and when earned could not be promptly paid, even if the cash was in the treasury. Under the law as originally passed by the board of education the county superintendent might draw the whole of his apportionment during the first quarter, but this worked hardship with the treasury. This was complained against and was repealed by the assembly in January, 1871.¹ Then it was provided that the apportionment should be drawn only quarterly, and the following situation resulted: A teacher began his school, say, in January and finished in March; he could then draw only one-quarter of his salary, but for the remainder "must wait until the second, third, and fourth quarter roll around before he can be paid in full."² Against this situation the superintendent entered a vigorous protest, and it was remedied by act of December 14, 1871.

The State superintendent could, however, report progress. There was organized a State teachers' association; there were satisfactory teachers' institutes; the establishment of normal schools was recommended, and eight were provided for, four for each race; private

¹ See report, 1871, p. 16.

² Report, 1871, p. 22.

assistance was again coming to the aid of the schools, and in this way the term was being lengthened; the schools were beginning to make an impression on the people; the improved laws and "the election of county superintendents of capacity and energy" were having the desired effects.

Because of a change in the school year the official year 1871 embraced only the nine months between January 1 and October 1. The year 1871-72 extended from October 1, 1871, to September 30, 1872, and at its end Col. Hodgson retired. We have seen that the first year of his work was devoted mainly to straightening out the financial tangles into which the school funds had fallen, from lack of care on the part of officers and of cash in the treasury. With the opening of his second year there was improvement, yet there remained two or three depressing elements in school life of which the superintendent speaks:

From unofficial reports of county superintendents I am informed that large amounts of warrants remain in their hands unpaid. It has been impossible, therefore, for county superintendents to balance their accounts with this office. * * * Much complaint is made by teachers of public schools that the treasurer is not able to pay their claims promptly. * * * I would urge upon the general assembly * * * to order a sale of sufficient State bonds to liquidate every cent of the indebtedness to her public schools. I would urge that the proceeds from the sale of these bonds be kept apart in the treasury from all other moneys and be held inviolably for educational purposes. I would urge, furthermore, that when the State shall have paid up all school dues to the end of the present fiscal year the school revenue for every year thereafter shall be kept separate and distinct from all other funds, and, as the constitution commands, "shall be inviolably appropriated to educational purposes and no other purposes whatever." This section of the constitution has never yet been put into effect by law. * * * The abolition of the board of education and the return of all legislative power respecting education to the hands of the general assembly would remove many difficulties which now embarrass the department, and would, in my opinion, meet the cordial approval of the intelligent people of the State. I am informed that but one State in the Union has ever had such an educational board as is provided for by our constitution.

As far as figures and numbers go, however, there was no reason for dissatisfaction with the year 1871-72. The school income was \$607,060.97; the apportionment \$553,067.65, or \$1.36 per school capita, as against \$1.33 in 1871, with \$12,000 for normal schools. The school population was 403,735; the total enrollment 103,615, and the average attendance 81,157, with 22 counties not heard from, as against 141,312 and 107,666, respectively, for 1871. The salary of white teachers in 42 counties and in the city of Mobile was \$38, and the length of term 72 days. For colored teachers in the same territory it was \$40 and 71 days.

During these years educational legislation was left practically in the hands of the board of education by the legislature. The board was not slow to exercise its legislative functions; besides much

routine legislation looking to the relief of individuals, there were acts fixing the salary of teachers, the limit being \$60 per month, and requiring the township trustees to see that the school funds were so supplemented as to bring the term to five months; four normal schools for white teachers, with \$4,500 available funds, and four for colored teachers, with \$4,750, were provided. A normal school for white female teachers and a "central normal school" at the university were also provided, but the first and third of these acts were repealed by the legislature in February, 1872.

III. SCHOOL LEGISLATION IN 1872, 1873, AND 1875.

The successor of Col. Hodgson was Col. Joseph H. Speed (1872-1874). The political pendulum had again favored the Republicans, and Col. Speed sought to make party capital by using the arguments of his Democratic opponents. He urged "that reform, retrenchment, economy" be "severely and rigidly enforced." He reviewed the educational experiences of the past:

Every dollar of the public-school fund and the university fund given the State by the General Government has either been squandered or lost. Let us satisfy our tax-burdened people that every cent of their money shall be honestly, judiciously, and economically expended, and that all disbursing school officers shall be held to the severest account. * * * It has been represented * * * that many county superintendents of education are in default. * * *. Those who have been unfaithful and dishonest (if such there be) in applying and using the money raised for the education of the *poor children* of our State should not go unpunished.

It was imperatively necessary, first of all, that the system get back to a business basis, and soon after Col. Speed's accession to office the board of education entered upon legislative activities which were far-reaching in their effect. These acts included the introduction of certain textbooks into the system, but teachers were at liberty to refuse to use any books which had not been adopted by the board; county superintendents were required to have an office at the county seat; city systems separate and distinct from other parts of the county school system were inaugurated for Selma, Opelika, Eufaula, and Birmingham; and a normal school for white male teachers was established at Florence.

The most important of these acts, however, grew out of the desperate financial straits to which the schools had now been reduced. There had been more schools and more teaching than the State could pay for, and to prevent a bad situation from becoming still worse the board passed an act on December 14, 1872, which ordered that after January 1, 1873, school officers—

shall cause to be closed all the free public schools in their respective townships and counties, and shall employ no teacher in any public school in this State until said trustees shall be informed by the superintendent of public instruction that funds have been provided for the prompt payment of teachers.

This act was the most important part of the school legislation for the year. It was drastic and yet necessary to bring the schools back to a cash basis, for at the end of the year on September 30, 1872, there was due the school fund and still unpaid the sum of \$317,575.35, and this amount was steadily increasing. This situation had been brought about by two causes. The custom had arisen in the days just after the war of borrowing the school funds to meet what seemed to be more pressing needs, and this misapplication of funds had not yet ceased. In the second place, there had arisen under the stress of public poverty the custom of issuing State warrants or certificates in anticipation of taxes. These warrants were made receivable for taxes and as such circulated as a sort of bastard currency and at more or less discount. In 1871-72 warrants amounting to nearly as much as a year's taxes were issued. They came back to the treasury the next year in payment of taxes, and the school administration faced the dilemma of either new warrants or bankruptcy. It was to meet this situation that the law of December 14, 1872, was passed, and as a result there were practically no public schools in Alabama January 1 to October 1, 1873, except such as were supported by local funds. The schools were thus the first to feel the effects of these financial troubles, and the principal work of the superintendent during that summer was to explain to his correspondents, to school officers and others, why there could be no public schools.

The assembly, in order to stop the misapplication of school funds and to reestablish the schools, passed an act April 19, 1873, of far-reaching significance for the schools. This act required the county tax collector to pay the poll tax to the county treasurer, instead of the State treasurer. It required further that by December 10 of each year the State superintendent should announce the apportionment due each county, exclusive of poll tax and special tax, if any, and that 90 per cent of this sum should be paid by the county tax collector directly to the county treasurer. In this way the greater part of the school money was held in the county. The remaining 10 per cent was held in the State treasury for the benefit of the counties.¹

Four days later (April 23), as if having ceased to hope for help at home, the assembly appointed a joint committee to memorialize Congress in behalf of the public schools. They were to ask for 3,000,000 acres of the public land still lying idle in the State and to pledge the faith of the State for the safe administration of the fund, the principal to be inviolate, the income only to be used. Nothing seems to have come out of this memorial.

It is evident that the radical changes inaugurated by the laws of December 14, 1872, and April 19, 1873, would upset entirely the

¹ Laws of 1872-73, p. 6.

school interests for the year 1872-73. There was set aside this year for school purposes the sum of \$524,452.40, and there was issued in warrants during the first quarter \$68,313.93, but—

even for the limited extent to which schools have been taught during the last year, the treasury has not been in such condition as to enable teachers to draw the small amounts of money due them. The best that could be done was to have treasury warrants drawn in such way as would be most advantageous to these worthy claimants.

The office of education issued certificates upon which school warrants were drawn by the auditor. These were made payable to the county superintendent, who indorsed them and paid them out to such teachers as would receive them. Their acceptance was not legally compulsory, but was economically so, for it was this or nothing, and since the warrants could not be paid by the State, the teachers were forced to discount them at usurious rates. The effect of this upon the morale of the teachers can be easily seen.

To increase the value of the warrants the superintendent suggested that they be made to bear interest. In his official correspondence he emphatically denies that he had been a party to the custom of passing over the claims of teachers in favor of other creditors and in his published report says of the teachers:

There is no class of State creditors more meritorious than the teachers of public schools; no claims against the State can be urged with stronger force than theirs. Indeed, there are many patent reasons why their dues should be entitled to precedence in payment, so long as the State is compelled to discriminate even temporarily between her creditors. The large amount due the schools, as above shown, has accumulated because the exigencies of the State have been such as to compel the use of the money to meet other demands.

In another part of his report (1873), he says:

The financial depression experienced by all branches of the State Government for the last year has been specially embarrassing to the public school system. * * * To those at a distance * * * it is proper to observe that the difficulties are in no respect attributable to any act, either of commission or omission, on the part of the officials intrusted with the duty of administering the affairs of the State Government for the period mentioned.

It is clearly evident, moreover, that the board of education felt matters had now come to a standstill. They evidently doubted the sufficiency of the act of April 19, 1873, and in a memorial dated November 25, 1873, put the matter squarely before the assembly. They say:

The want of money has crippled the educational department and led to the suspension of the free public schools throughout the State. This unfortunate condition has not resulted from unwise legislation on the part of the board of education, nor from incompetency or unfaithfulness in our school officials, but is chiefly due to the fact that no act has been passed to enforce section 10, article 11, of the constitution of the State of Alabama, which provides that certain revenue and other school funds therein named "shall be inviolably appropriated to educational purposes and to no other purpose whatever."

Since the organization of the present school system in 1868 this provision of the constitution has been disregarded by each successive legislature. Your honorable bodies have been the first to carry it partially into effect. [By law of Apr. 19, 1873.]

Each year an increasing percentage of the school fund has been diverted from its legitimate use to the defraying of the general expenses of the State, which compelled the board of education to close the schools for the want of money to pay teachers and officers.

The contention of the board was shown by the following figures given by them of sums apportioned, sums actually paid out for the schools, sums due but not paid to the schools at the end of the year, and the total sums still due.¹

Appropriations and expenditures for public schools, 1869-1874.

Years.	Apportionment for year.	Received for school purposes.	Balance due schools at end of year.	Total amount due.
1869-70.....	\$500,407.18	\$306,872.99	\$193,724.19	\$187,872.49
1870-71.....	581,389.29	320,480.97	260,908.32	280,515.50
1871-72.....	604,978.50	166,303.29	438,675.21	417,165.40
1872-73.....	522,810.00	68,313.93	454,496.17	786,165.40
1873-74.....	474,346.52	.....	.....	¹ 1,280,511.92

¹ Due Nov. 25, 1873.

The board felt under the necessity of defending itself for closing the schools by act of December 14, 1872. There was choice only between closing the schools and issuing more school warrants. The issue of more warrants would have depreciated still further the value of those already issued and seriously embarrassed the State.

They continued:

Your memorialists would impress upon your honorable bodies that the State is more than two years in arrears to this school fund. The board of education is powerless to remedy the condition of the school finances. * * * Your memorialists would repeat that the present condition of the educational department is not the result of unwise legislation * * * nor of unfaithfulness or inefficiency of school officials, nor of the expensiveness of the administration of the school laws. There has not been a dollar, of which they are aware, lost by the default of any school officer since January 1, 1871. * * * This is as economical an administration of the educational department as can be found in any State. It seems hardly practicable to reduce expenses any further. No system probably can be devised which will pay teachers more than 94 per cent of the fund. The present school system will do this, and would have done it at any time during the past four years had the legislature provided for the prompt payment of the school money. It is for your honorable bodies to determine what relief you can afford.

For its part the legislature of 1873-74, to whom this memorial was addressed, seems to have done nothing beyond making a special appropriation of \$170,688.85, "which is the amount of interest accruing on the sixteenth section funds," for as Col. Speed was continually pointing out to his correspondents during the summer of 1873, the

¹ It will be noted that the treasurer's reports for these years show "larger amounts than here given disbursed for educational purposes; but the excess was used in paying indebtedness for previous years."

suspension of the schools did not affect the income of the permanent school fund: "It is not suspended, but goes on accumulating without any reference to any interruption in the State's finances." It does not appear, however, that this appropriation was paid. State bonds could no longer be sold, and the sole dependence was on taxes. The act of December 17, 1873, forbidding tax collectors and all others engaged in collecting revenue from trading in any way in State warrants, State certificates, or other State securities is a sufficient indication of one difficulty which the school system had to face.

Col. Speed's statistics for 1873-74 are exceedingly scanty. In his report of November 10, 1873, he estimated that the poll tax to be retained in the counties amounted to \$80,486.11, while the 90 per cent certified to the counties under the law of April 19, 1873, amounted to \$352,673.92, making a total of \$433,160.53 which the counties might count on as cash, since it was a first lien on the taxes of each county; but, as this was the first year of the law, its practical working proved—

very unsatisfactory and embarrassing. It proved hard to make the county superintendents understand how the 90 per cent was drawn and still more difficult to have them conform to the conditions which the new system imposed.

In some counties the 90 per cent certified was more than was collectable, and the superintendent still felt it necessary to urge that—

some plan may be matured and adopted by which our public school system will realize the benefits of the money that has become due to it by the regular laws of the State.

* * * An experience of two years * * * has shown me more and more forcibly the almost absolute necessity of some fixed, known, and available dependence for the support of schools and teachers. Our schools need more energy * * *. Yet there is no more difficult task * * * than to break up the humdrum, listless, lifeless performance of school duties, which inevitably attends upon long delayed, incomplete, or uncertain payment of the teachers.

According to Col. Speed's report of September 30, 1874, the total available funds for the year 1873-74, exclusive of poll and special taxes, were \$405,080.42; the total expenditure, \$404,301.14. We have no way of explaining the difference between the figures given in this report and those of the earlier one. There were reported 233,333 white and 172,506 negro school children. There are no statistics of enrollment, attendance, schools, or teachers. It looks as if Fleming's sweeping charge (p. 633) was literally true:

Practically all of the negro schools and many of the white ones were forced to close and the teachers, when paid at all by the State, were paid in depreciated State obligations.

This administration did not close without an official investigation "into the irregularities alleged." The committee made its report December 15, 1873, and showed up certain blameworthy shortcomings. The gist of its conclusion was that there was in the depart-

ment "such a want of system in its general management as must necessarily keep it involved in inextricable confusion."¹

Since with Col. Speed's administration reconstruction in the schools comes to an end, we may quote here the words of Leroy F. Box, later State superintendent, as to why the reconstruction system was "unpopular and therefore unsatisfactory." He says:

Among these [causes] may be mentioned unwise legislation * * *. But it is probably true that the chief cause of the unpopularity of the system through all these years may be found in the fact that upon its reorganization after the war, our people were led to expect too much from it. Men whose interests were not identified with the people of Alabama * * * held out to our people the alluring but false hope that Alabama had at her command and disposal a magnificent school fund—a fund sufficient not only to maintain the schools annually throughout the entire year, but to build and equip schoolhouses and even to furnish lights and fuel for use in the schools. So rigid was the construction placed by these men upon the provisions of the State constitution of 1868 relating to the public school system, that it was held to be unlawful for parents or guardians of children attending the public schools to supplement the township funds. And * * * our people, stricken down as they were * * * listened for a time to the song of the siren.

With the awakening came a revulsion of feeling that home rule could not immediately dissipate.

Hon. John M. McKleroy, who succeeded Col. Speed in 1874 and served till 1876, shows a clear understanding and a sure grasp of his subject. Had he remained at the head of the schools, he might have developed into an educational statesman. During his administration the constitution of 1868 was superseded by that adopted in 1875, which more clearly represented the thoughts and feelings, the hopes and aspirations, of the people then in power in the State.

It is evident that for the year 1874-75 there was marked improvement. Says the superintendent:

In all the counties, and in nearly every school district in the State, one or more schools have been in operation, and there are but few districts where schools for each race have not existed * * *. It is * * * believed that every person in the State, within the school age, has had the opportunity and privilege of attending the free public schools during the last scholastic year.

The enrollment for the year was 145,797 out of 406,270 children between 5 and 21, and while the enrollment was only 36 per cent of the school population we must recall that this was nearly 40,000 more than in any previous year. The school term for whites reached 90 days, at a cost of \$3.09 for the term per pupil; for the negroes the term was 83 days, at a cost of \$3.79 per pupil.

Says the superintendent:

It will be readily observed that the tuition of these pupils in private schools would have been about seven times more than it has been under our free school system * * *. It is also the fact that our schools have been kept in operation during the past year much longer than during any previous year since the constitution of 1868 has been in force.

¹ See Senate Journal, Nov. sess., 1873, pp. 245-252.

These improvements were attributed to (1) the adequate school fund for the year; (2) the availability of the fund when needed; (3) the wise laws for regulating the schools and disbursing the fund made by the board of education; (4) the efficiency of a majority of the county superintendents.

The school fund for 1874-75 was \$565,042.94, including \$73,555.30 of poll tax levied, collected, and retained in the counties. There was disbursed in all during the year \$562,437.50, including the poll tax mentioned above and the \$10,000 appropriated to normal schools.

In writing of the school fund as "adequate," the superintendent emphasizes the fact that it was adequate only—

to accomplish the great good which the reports show has been wrought by means of the schools. And it is proper to state that this result even has not been attained with the money appropriated by the State alone, for it will appear further on that the patrons of the schools have, in many instances, supplemented the public funds. * * * There are in the State 1,696 school districts. * * * In each of these districts there must be at least one school for each race, and in many of them more than one school for each race is required to accommodate all the children. * * * The whole fund of last year was only \$1.39 per capita of the school population, and only \$3.875 per capita of those enrolled in the schools. * * * The fund for the past year has been almost the same as the average appropriations for the preceding years since 1868; and if more has been accomplished with it than heretofore, it is due to the last three causes mentioned above. The principal of these is that money has been available when needed. I doubt not that the chief embarrassments of former administrations have been owing to the fact that when the schools were taught, and the money became due to the teachers, it could not be had. Previous to the enactment of the law of April 19, 1873, by the general assembly, "To keep in each county in this State a proportionate share of the public school money," all the revenues of the State were paid into the State treasury by the collectors, and the money appropriated by the constitution and laws for educational purposes was not set apart and devoted to such purposes, but was used indiscriminately for any and all State expenditures. The consequence was that in almost every instance the money was not in the treasury when wanted, and poorly paid teachers had to accept warrants on the treasury, or nothing, for their services. They were then compelled to sell these warrants to speculators at ruinous discounts to procure the ordinary necessities of life. Is it surprising that under such circumstances the school system should have been decried, and the administration of it should have been regarded with disfavor? No wonder that the people were ready to believe that a school system which seemingly absorbed so much of the State revenue and from which so little benefit was derived was worthless. No wonder that they began to contemplate seriously the propriety of an entire abolition of the system. * * * The passage of the act of April 19, 1873, was the beginning of a most salutary change to the school system. * * * thus the [school] fund was exempted from the habitual misapplication.¹

The law of April 19, 1873, was revised and amended by act of March 19, 1875, so that all poll and special taxes remained in the county where levied and collected; the State superintendent made the apportionment on October 10, instead of December 10, and the 90 per cent was now paid to the county superintendent, who became custodian

¹ Report, 1874-75, pp. 6-11.

of the county school fund, instead of the county treasurer. The remainder of the fund due the county was apportioned January 1, and was set aside by the State treasurer for the use of the county schools only.

Moving forward the dates of apportionment seemed to help the county tax collector in making payment and the county superintendent in apportioning funds to the districts. It helped forward also decentralization; the whole of the poll and special tax and 90 per cent of the general apportionment now became a purely county fund and so was "exempted from the habitual misapplication," by either State or county treasurer, for it sometimes happened when the latter was custodian of the school funds "that the warrants of the county superintendents to teachers were not promptly paid on presentation as they should have been."

This new arrangement went back to the law of 1856, which had been in force till after the organization of the schools in 1868. As a further amendment of the law the superintendent strongly urged that the whole sum apportioned to the county be certified and not 90 per cent, for—

the whole amount of the school fund is known before the apportionment is made, and the exact amount which each county will be entitled to is known as soon as the apportionment is made.

The superintendent wrote encouragingly of the influence and effects of the laws of the board—

regulating the schools and the disbursement of the funds.¹ The principal improvements are those which restrain trustees from making contracts for or opening schools until after they have received notice of the amount to which their township, and each race therein, will be entitled for the year, prohibiting the establishment of more than one school for each \$100 apportioned to the particular race in the township, unless the fund is supplemented by the patrons so as to provide at least \$100 for each school; compelling all schools to which as much as \$100 is appropriated to be kept in operation for at least 20 weeks.

Schools which had less than \$100 were to last 12 weeks, and teachers were to be paid monthly under penalty.

The superintendent says:

This provision has caused many patrons who desired to have schools in their immediate neighborhoods to supplement the public fund, and thus to multiply the schools. In fact in almost every county in the State, the fund for white schools has been, to some extent, supplemented by the patrons. * * * This compulsory term of five months has also prevented the public schools from being degraded into mere summer schools, taught in the vacation season of private schools, and with a view principally to absorb the public fund, and avoid the competition with those schools. * * * Even now, in some of our cities the graded public schools are considered the best therein; and those cities where such schools have been in operation for some years, I am satisfied, could not be induced to abolish them, even if they should be compelled to sustain them solely by municipal taxation.

¹ See board of education law of Dec. 10, 1874.

But Supt. McKleroy was not without his troubles, and the line of attack was the same as in earlier days—the county superintendency. The reason was also the hoary one which had done service in ante bellum days—economy in administration. This reason has done service in States other than Alabama; and the arguments used to meet the attack are the same as those of other days, abundantly reinforced by citations from the experience and arguments of earlier superintendents, from the days of Perry to those of Speed. Against the investment of money in the public schools themselves there was no outcry, but the idea seems to have been that the system should have been self-executing, and that little or nothing should have been expended for the administration of the law. Even the poor salary of the clerk in the office of the State superintendent and that of the superintendent himself were seemingly begrudged, while all sorts of schemes were proposed by which the work of the county superintendents might be performed without cost to the State. It is strange that people who were accustomed to pay for superintendence in business affairs were so slow to place education on as high a plane. One argument against county superintendents was that they were incompetent. To this the superintendent replied:

A prime difficulty in securing competent county superintendents in all the counties arises from the fact that the compensation of these offices, as now fixed by law, is so small. It is not enough to enable them to devote their whole time and attention to the office, and they must therefore, from necessity, pursue other vocations as well.

The average salary of county superintendents in 1874–75 was only \$436.96 and the total amount expended during the year for this work was \$30,587.28. Individual salaries had ranged in 1870 from \$2,000 per year in Dallas, Mobile, and Montgomery, down to \$437.50 in Covington. In 1871, after the Conservatives came into power, these salaries were revised downward and varied from \$1,674.21 in Mobile to \$300 in Baldwin and seven other counties. In 1874–75 the highest superintendent's salary was \$2,810.75, in Mobile; the lowest, \$300.

There were three normal schools in successful operation for the year, one for white teachers and two for colored. They were each well attended and were doing good work.

The apportioned fund for the year was \$549,814.09; the school population was 406,270; the enrollment, 145,797; the average length of the term was 86 days; the number of teachers, 3,961; the average pay per month was \$27.20 and the average cost per pupil per month was 83 cents.

It would appear then that during the year 1874–75 the schools were fast getting on their feet again; they were finding themselves in a financial sense, and this was helping them rapidly forward.

In January and March, 1875, the general assembly had felt it necessary to provide against embezzlement of school funds and to

require, under severe penalty, that tax collectors pay to the county superintendent "the identical money, currency, or obligation received by them for taxes from the taxpayers." The purpose of these acts was plainly to prevent thrifty and unscrupulous collectors from paying over to the school funds bad money in place of the good money received by them. Under this law it was no longer possible for collectors to speculate to the disadvantage of the teacher.

Another law passed March 8, 1875, was not so favorable. This revised the code and cut the rate of interest on the sixteenth section funds from 8 per cent to 4 per cent, while that on the surplus revenue was not mentioned. The result was that, while the school had received more than \$200,000 from these three sources in 1874-75, they would receive in 1875-76 only \$73,663.35.¹ It was explained that since the State under the constitution was already giving one-fifth of her income to the schools, the old rate of interest made it undertake more than it could well perform. This was blow number one.

Blow number two was still more severe. The new constitution was adopted on December 6, 1875, two months after the beginning of the school year, and after the regular fall apportionment had been made to the counties. This new constitution abandoned the one-fifth requirement for the schools, and, under the interpretation of the attorney general and against the protest of the State superintendent, this was declared retroactive for the year 1875-76.

In this way the act of March 8 and the new constitution gave a heavy setback to the schools. In 1874-75 their income had been \$565,042.94. In 1875-76 it was only \$351,496.64, made up as follows:

From sixteenth section funds, at 4 per cent.....	\$69, 779. 70
From valueless sixteenth section funds, at 4 per cent.....	3, 883. 65
From surplus revenue funds, at 4 per cent.....	26, 763. 47
From special appropriation under the new constitution.....	150, 000. 00
From poll tax.....	96, 414. 39
From miscellanies, balance, etc.....	4, 655. 43
Total.....	351, 496. 64

Of this sum there was apportioned to the schools \$337,276.33; \$8,000 went to the normal schools, while \$6,150, including the expenses of the superintendent's office, went for miscellanies.

The reports for the year were very imperfect; only 51 counties were heard from. In these 51 counties there were 3,088 schools in 1875-76, as against 3,211 for the previous year; there were 104,414 children enrolled, as against 118,252; and the length of the school term was 80 days as against 86 days. Further than this, there was

¹ See report 1874-75, p. 41. The law of Mar. 8, 1875, provides no interest on the Surplus Revenue fund of 1836, but this was restored by the constitution of the same year.

long delay in securing the \$150,000 direct appropriation provided under the new constitution, and some of the schools were not started till the spring; but notwithstanding all of these disadvantages the gratifying fact developed that—

the result of the last year's operations, as compared with those of the previous year, are not proportionate to the diminution of the fund * * * the system during the past year has been even more useful and beneficial to the State than could reasonably have been anticipated in view of the decreased school fund and the late period in the year before it became available and the schools could be opened.

To the delay in opening the schools was charged the falling off in enrollment, but this in turn—

at least prevented the origination and accumulation of claims against the school fund which in former years so disaffected and discouraged teachers and made the system unpopular generally.

The superintendent urged a closer collection of poll tax and that each school district be required to levy and collect "a special tax, within proper maximum and minimum limits, for the maintenance of its own schools." The matter of the county superintendents was still an open one. The term of office of all was terminated by law on the first Monday in August, 1876; then the salaries were reduced and the term of office extended to January 1, 1877.

The injurious effects of these enactments are already perceptible. Hardly any teachers' institutes or conventions have been organized or held during the year, and the county superintendents, by reason of their inadequate compensation and uncertain tenure of office, have almost invariably suspended visitation of the schools. Several * * * have resigned, and others have only been induced to hold on to await the action of the general assembly on the subject.

A fairly accurate picture of the schools in 1874-75 may be secured from the reports of the county superintendents. From these it is evident that they were gaining in popularity and were strengthening their hold on popular favor, but it was still thought that too much of the public money was going for superintendence and administration—a feeling which came near being disastrous in 1876. School-houses were still very inferior; most of them were private property, with little or no furniture. The public was either unwilling or unable to build houses, and instead borrowed the use of churches, discarded log houses, or school buildings erected by private enterprise. In some sections attendance was still poor, due to indifference rather than hostility, and among the negroes to frequent changes of residence. The county schools were numerous, and frequently had fewer pupils than they could accommodate, because of local jealousies and the desire of every man to have a school at his own door. The same spirit prompted trustees to start rural schools within walking distance of each other and to use each a few months rather than consolidate and run one for double the time. The principle of

social solidarity had not developed; each community was sufficient in itself and generally a law unto itself; few were willing to increase the length of term by a levy of taxes or by voluntary subscriptions.

But notwithstanding all these adverse conditions the schools were gaining in strength and influence. The people of Alabama had never been opposed to the system per se. In ante bellum days they may have been indifferent, but this feeling was melting before the rays of knowledge. They opposed those who took over the system in 1868, but when they again secured control of the State government they did not overthrow the work of the former régime; they did, however, change the direction of its energies; they extended its scope, welcomed it as an ally, and sent their best citizens even into the negro schools, which a few years earlier would have meant social ostracism.¹ They were still troubled with the debts created in earlier years, by a depreciated State currency, and by a lack of cash. Teachers still had to discount their warrants, in some cases as much as 50 per cent, but the finances of the State rapidly improved under the administration of the Conservatives, and not only did they increase enrollment, attendance, length of school term, and number of teachers, but in 1875 they had established one normal school for whites with an income of \$5,000 and two for negroes with the same income.

A just estimate of the work of the people of the State for the years between November, 1870, and December, 1875, compels the fair-minded critic to say that while the amount devoted to education was small, it was perhaps as much as the people could be expected to give. It should be remembered also that progress in education can never come from the fiat of a man at the top, but must be an evolution that carries the people with it.

The schools of Alabama were never out of the hands of natives as completely as were those of some other Southern States. The constitution of 1868 introduced some foreign elements and ideas, but every change tended back toward the ante bellum norm, and it seems correct to say that the Alabama system of public education has grown out of the actual experiences of the people of the State.

The administration of Supt. McKleroy may be characterized as a period of intense shock; had not the schools been in the hands of some of the best people, they would hardly have stood the strain. As it was, the superintendent was able to hold the schools steady. No progress could be expected in the face of such loss of income as the schools suffered in 1875, but there was much less loss of prestige than might have been expected, and as a result, after the force of the financial loss was spent, after the political problems of reconstruction were

¹ Superintendent's report, 1874-75, p. 105.

settled, after the schools had been again able to find themselves, they were ready to enter upon an untrammelled course of development.

Supt. McKleroy, in his final report, dated November 9, 1876, summarizing the situation for the two years of his administration, says:

In that period great advancement and improvement has been made. The principle of the power and propriety of a State to maintain a system of free public education has been affirmed in unmistakable terms by the people of this State, and they have implanted it in the constitution made by themselves, and in the same instrument they have made liberal provisions for its support, thus guaranteeing its permanency and usefulness.

And this statement, with many confessions of weakness, with many caveats and supplementary pleadings, may briefly characterize the educational history of this State during the period that tried men's souls as by fire.

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Chapter IX.

REORGANIZATION AND ADVANCE, 1876-1898.

I. CONSTITUTION OF 1875.

The new constitution of Alabama, formed by convention September 6 to October 2, 1875, ratified by popular vote November 16, going into operation December 6, 1875, represents the reaction from reconstruction. It was the culmination of an eight-year struggle for self-government which had absorbed the greater part of the life and public energies of the State. If little was accomplished during this period in the way of educational progress it was because all energies were absorbed in the greater question of political autonomy. What was education to men struggling for political existence? What was education without liberty?

The question of the autonomy of the South had been settled by 1875, and the constitution of that year may therefore be taken to represent the ideas of the native population on education. The careful student will recognize at once the close relationship of the educational provisions of the constitution of 1875, and the laws based on it, to those in force prior to 1861. The constitution of 1868 and the reconstructionists did little for education in Alabama. There is no ground for the claim that reconstruction or the Freedman's Bureau founded (or even substantially advanced) the cause of public education in that State.¹

Article 12 of the constitution of 1875 deals with education. The marked change from the constitution of 1868 was the disappearance of the State board of education. That anomalous board had long been doomed. It now disappeared.

In other respects there was little radical change. The new constitution provided that the assembly "shall establish, organize, and maintain a system of public schools" with an age limit of 7 to 21 years; coeducation of the races, although no longer possible, was formally guarded against by the requirement of separate schools for "the children of citizens of African descent"; the old fiction of the perpetual fund was still maintained, and interest on the sixteenth section and surplus revenue funds was ordered paid. Nothing

¹ See DuBois, in *Atlantic Monthly*, March, 1901.

is said of the valueless sixteenth section fund, but by interpretation this was counted as a part of the sixteenth section fund. The assembly was to provide for an annual poll tax of \$1.50, which was to be used for "public schools in the counties in which it is levied and collected"¹; the assembly was to provide annually, "by taxation or otherwise," not less than \$100,000 for public schools, and this sum was to be increased "as the conditions of the treasury and the resources of the State will admit."

The wasting of public money was guarded against by a provision that not more than 4 per cent of "all moneys raised" or "appropriated for the support of public schools" should be expended otherwise than for the payment of teachers. A State superintendent was to be elected by the people; no public money could go for sectarian schools; the university and the A. and M. College were put each under its own board of trustees, who were appointed by the governor. The independence of the Mobile County system of schools was recognized, and there was added a clause which was to be the entering wedge for the broader system which has not yet materialized in the State—

and all special incomes and powers of taxation as now authorized by law for the benefit of public schools in said county [of Mobile] shall remain undisturbed until otherwise provided by the general assembly.

The income under the Constitution, when arranged by its sources, was as follows:

From the State:

1. Lands from United States, income only to be used.
2. Gifts from individuals or State and escheats, the principal might be used.
3. Surplus revenue, sixteenth section and valueless sixteenth section funds (paper funds), income to be used; rate of interest fixed by the assembly.
4. \$100,000 or more appropriated by the assembly.

From the county:

1. Poll tax of \$1.50 per poll.

There was no other suggestion of local tax, nor was it possible to levy such tax,² save in Mobile County, which became for that reason, the cynosure of all progressive eyes. Not until the constitution of 1901 was it possible for the counties to levy directly a 10-cent tax (1 mill) for the benefit of schools, and then only by a three-fifths vote.

Yet, it would be an error to assume that the educational provisions of the new constitution were everywhere regarded as indicative of progress. Says James Somerville, superintendent of Pickens County:

The most of our people regret the necessity that the legislature * * * felt of diminishing the interest on the sixteenth section fund one-half. They also regret the

¹ The reports of the auditor show that for year after year the poll tax was poorly collected. The errors and insolvencies were often 50 per cent of the total amount received; in some cases they were actually more than the whole.

² Attention is called to the act of 1899 levying a general tax of 10 cents for schools, considered in Chapter X.

necessity that the late convention * * * felt of adopting the articles on education; * * * whatever may have been the necessity of this retrograde movement in the course of public education, it is deeply to be regretted by all. To educate the people should be among the highest aims of a free State that desires to continue free.

II. THE SCHOOL CODES OF 1877 AND 1879.

Such were the provisions of the constitution of 1875, which went into effect after the beginning of the school year 1875-76. We have already discussed the effects of the interpretation of this constitution on the school income for that year. By the beginning of the year 1876-77 the schools had somewhat readjusted themselves.

Then came the general school law of February 8, 1877, which went into effect October 1, 1877. This law, in general, was not unlike earlier educational acts; the rate of interest on the sixteenth section and valueless sixteenth-section funds was fixed at 6 per cent and on the surplus revenue at 4 per cent; other annual rents, incomes, profits, sales, and escheats went to the general fund. The contribution by the State was fixed at \$130,000.

The officers of the system were a State superintendent, county superintendents, and three trustees in each township or school district. The State superintendent was elected for two years. He was an advisory officer with little opportunity for supervision. His duties included the apportionment of school funds "to the respective townships or school districts." In the matter of sixteenth-section funds, the principle of distribution first inaugurated by Gen. Perry in 1854 was again made part of the law.

The superintendent of education shall first set apart to each township or other school district the amount due from the State to each district as interest on its sixteenth-section fund or other trust fund held by the State, and all townships or school districts which have an income from trust funds in the hands of the State, or from lease or sale of their sixteenth-section lands, shall not receive anything out of the balance of the educational fund to be apportioned until all other townships or school districts having no trust fund, shall have received from the general fund such sum as will give them an equal per capita apportionment with the townships or districts having such trusts and income.

It will be seen that by this arrangement the sixteenth-section funds were substituted by a per capita distribution; the district which had sold its lands to advantage did not receive much more, and the district which had wasted its lands did not receive much less. The capital from which this sixteenth-section income was derived was paper only.

The county superintendent was appointed by the State superintendent. His duties were mainly financial and not supervisory in character. He was the treasurer of the county school funds, paid all teachers, made settlements with the tax collectors, made reports to

the State superintendent, and kept an office at the county seat one day in each month. His pay was \$75 per year and 1 per cent of his disbursements; this might be forfeited by failure to make reports.

The three local trustees were a law unto themselves; they sold or leased school lands, established schools, hired teachers, visited schools, took the school census, from the reports of the teachers certified "how much is due each scholar for actual attendance," and then drew their warrant on the county superintendent "in favor of each teacher * * * for amount due him on his annual report." As pay for their high-class, exacting, and important duties, they were relieved from road and jury duty.

It was provided that the whole of the amount apportioned to the county by the State superintendent should be certified by the auditor on October 10 and paid by the county tax collector to the county superintendent. If the amount of school money thus certified was more than could be collected in the county, the remainder was paid out of the State treasury. It was also provided that funds raised by local taxation should be expended in the district where raised, and, finally, this law did not apply to cities and towns "which are provided for by local school laws." All expenses other than those for teachers could not exceed 4 per cent of the whole; the poll tax and the whole of the county apportionment was collected and spent in the county of its origin. The actual money was handled only by the county superintendent. The teachers were paid on the basis of attendance. The minimum attendance was rigidly fixed by law at 10 pupils, and the length of term at 3 months, or 60 days.

The tendency to create special school districts which developed during these years will be discussed later. The law of 1877 was superseded by a new codification enacted February 7, 1879. In most respects it is similar to the law of 1877, except that the school revenue is made to include income from unsold lands and license taxes. The county superintendent is still a financial or disbursing officer, and his pay is increased from 1 per cent to 2 per cent; the board of township or school district trustees is decreased from 3 persons to 1. His duties are essentially the same, but under the new law he was not to contract—

to pay a teacher more per month than one-third of the amount of the district fund set apart for the school to be taught by such teacher, nor shall he contract for a school of less than three scholastic months, nor less than 10 pupils.

Nothing was said in the new law about attendance as a basis of pay, but reports were more rigidly insisted on under penalty of loss of salary which otherwise would be paid quarterly. A new feature in the law was the county educational board, consisting of the county superintendent and two teachers of the county. They were a county examining and licensing board and were required to organize and

maintain at least three teachers' institutes during the year. The teachers were required to attend at least one, and the board contributed its services. Public examinations were to be held in the school every year, and there were the elements of a graded system. The law provided further that all poll and local taxes should be expended in the school district by the race which paid them.

This is the last general revision of the school laws of Alabama until 1895, and with this review an examination may be made of what was accomplished during the first years of the restored native administration. Since the adoption of the constitution of 1875 and the readjustment which immediately followed, the history of the Alabama schools has been uneventful. Yet it presents an interesting story of a struggle against poverty that prevented and conservatism that delayed the progress most ardently longed for and worked for by leaders whose duty it was to guide a people toiling upward through the night toward the light of universal education.

The successor of John M. McKleroy was Leroy F. Box, a lawyer of attainments, who later rose to a seat on the State circuit court bench. His administration covers the four years 1876-1880. He published three annual reports, no report being issued for 1876-77, although the statistics for that year are included in the report for the next.

The feature of most importance during these years was, perhaps, the general school laws enacted in 1877 and 1879. It required some time and effort for the schools to readjust themselves to the changes then inaugurated, but with this exception there was no violent interruption during the period.

The superintendent took particular pride in emphasizing the lowness of cost in the schools. This was only 57 cents per pupil per month, or \$2.45 per term of 84½ days in 1877-78. He emphasized this "cheapness of instruction and economy of supervision" as commendable features of the school system. He pointed out that in these respects Alabama surpassed all the other Southern States, and by the same token he might have said that here Alabama led the Union. His argument proved too much.

There is in this period, beyond a doubt, a tendency to increase the general efficiency of the system. The number of teachers increased, as did the total enrollment and average attendance. After 1877-78 there was a marked movement to reduce the number of schools and increase the number of pupils, although the length of the general school term was around four months, and there was only the natural increase in the revenue, based mostly on the closer collection of poll taxes. Some efforts were also made to realize on the old sixteenth-section land notes which were still in existence, some of them going back to 1837. By compromising some few thousand dollars were realized, and a very favorable sign was that in 1879-80 public funds

were being supplemented by private contributions to the extent of \$60,145.

It would appear that the greatest difficulty in the way of public school progress was too much content. Says the superintendent at the close of his term of office:

Our present school system is, in the main, a good one and will compare favorably with the systems of other States. It is reasonably adapted to the wants of the people, so far as it is practicable to adapt it to the present small appropriation for schools. Yet the system can be improved.

But unfortunately no Southern State with which comparisons are here indicated had more than the tentative beginnings of a system, and such comparisons served only to lull the ambitious into a false contentment.

III. PROGRESS IN THE EIGHTIES.

Judge Box was succeeded in 1880 by Hon. Henry Clay Armstrong, who served as State superintendent from 1880 to 1884. Perhaps the most important act concerning the schools in 1880-81 was the one giving the county superintendents full power to compromise the old sixteenth-section land notes. In this respect fair success was attained and a total of \$41,529.72 was turned into the permanent fund. The custom had been in earlier years to use this income for general expenses; the law of March 1, 1881, required it to be invested in Alabama 6 per cent bonds, but not till 1882-83 was the law obeyed. In that year also the State contribution to the school fund was increased from \$130,000 to \$230,000 per annum, and the effect of this increase soon made itself apparent.

The superintendent advised against sudden or radical changes in the school law, and none were enacted. He urged constantly the ever-increasing and more pressing need of money. At the end of the period the State was spending some 40 per cent of its total income for public schools; but the constitution forbade that more than 4 per cent of the total school fund should be used for any purpose other than teachers; and therefore school sites, schoolhouses, and school furniture suffered, and the county superintendents were miserably underpaid. The superintendent recommended a special tax of 5 mills, although evidently unconstitutional, to be devoted in part to material equipment, and asked that the pay of county superintendents be increased to \$100 and 4 per cent of their disbursements, instead of \$100 and 2 per cent. There was also a marked tendency toward centralization, for both superintendent and governor recommended that the county law of April 19, 1873, be repealed and that all funds be again gathered into and distributed from the State treasury. Certainly the main reason which caused the enactment of the law—the fear of misapplication of these funds—no longer existed. Two new normal schools for white teachers were established—those at

Jacksonville and Livingston—and the rating on teachers' certificates was made more close and accurate. The cost of the schools per pupil was only about 60 cents per month; the school term still hovered around four months; and the total yearly salary of teachers was less than \$100, although this small stipend was somewhat augmented by private contributions and subscriptions among the whites and to a very small extent among the negroes.

The extra contribution of \$100,000 first made by the State in 1883-84 was felt that year in an increase of 15,000 in enrollment and of 7,000 in average attendance, with nearly 400 new schools and the same number of teachers, but since the length of term went up only three days and the salary of teachers only \$2 per month, we may assume that the extra \$100,000 went mainly for schools and teachers for those who had been without them. This will account for the increased attendance and shows that the former superintendent was right when he said, "Our greatest need is more money." But the assembly was slow to rise to a real appreciation of this need.

Mr. Armstrong was succeeded as superintendent in 1884 by Hon. Solomon Palmer, who was the only one of the post bellum superintendents to break through the four-year rule of service. He served for six years, and during his term of office the schools enjoyed a fair degree of progress, the matters of preeminent importance being money and teacher training.

The system "is now regarded as essential to the prosperity of the State," said Mr. Palmer when he took office. This was true, and yet it was true only in the sense that there was no longer hostility to the schools. But the schools still encountered indifference on the part of the ruling classes, who believed that a great system could be developed with totally inadequate resources and an indifference on the part of the lower classes, who neglected to make use of the advantages offered. What impression on the mass of ignorant and indifferent illiterates could schools make that ran for three months in the year, with only 55 per cent of the children enrolled, with an average attendance of 33 per cent, with \$20 to \$22 as the average pay of the teachers per month, and with only 50 to 60 cents available per school child per month? It was, indeed, a disheartening prospect, and brave were the men who were willing to bear the burden of the public school system.

The main trouble was well known, and yet the educational authorities hesitated to speak freely. There was, however, at least one teacher in the State who analyzed the situation, and whether inspired or not, was bold enough to state the symptoms and prescribe the remedy.

J. N. Slaughter, of Rockford, Ala., speaking before the Alabama Educational Association in 1885, protested against selecting "State and county superintendents from among lawyers and politicians," and writing in the Alabama Teachers' Journal, for January, 1886, said:

There have been absolutely free schools in the reach of the people in Alabama for 31 years with only short intervals, and yet illiteracy is on the increase among the whites at the rate of 2.5 times faster than the population. The free school is at their doors, and yet they do not enter. Place a schoolhouse at the door of each of those 30,000 of illiterate householders, with free tuition and option to send, and but a small per cent of increase would be enrolled, and few of these would learn to read. * * * There is a remedy. Change the constitutional age from the present limit to 5 to 15 years. *Make attendance from 7 to 9 and from 13 to 15 years compulsory for four months in the year.* Establish regular normal institutes in each county and make attendance at these institutes compulsory.

It may be objected that Mr. Slaughter's history was not accurate, nor his statistics exact. Such objections may be granted, yet the statistics of enrollment and attendance show that he was not wide of the mark. As for his remedy—the time for that was not yet.

The first, greatest, and most insistent demand of Maj. Palmer and his supporters was for more money. During the six years of his administration the State appropriation for schools rose from \$230,000 in 1884-85 to \$350,000 in 1889-90; the poll tax, by reason of greater care in collecting, increased from \$138,000 to \$150,000. The total increase was from about \$511,000 to about \$850,000, but on the other hand, school population increased from 420,413 to 522,691; so the per capita increase was only from \$1.22 to \$1.63. The authorities even did not appreciate the situation, for while the superintendent was pleading eloquently for a larger share of the surplus piling up in the treasury, the treasurer was recommending that the general tax rate should be reduced by 10 per cent.

The State was then expending about one-third of its income on schools, but this sum was clearly insufficient, and there seemed little hope of substantial increase. The amount from the State depended on the will of the assembly as well as the condition of the treasury; the income from the perpetual fund was fixed by law; the income from poll tax was greatly reduced by poor collections, especially among the negroes; and what might have been the fruitful source of local taxation was so hedged about by constitutional limitations as to be of little value.

The Alabama Educational Association was already discussing and advocating local taxation and the authorities were still seeking to equalize to all of the counties the sums derived by the richer ones from sixteenth section funds. The interest now paid on these funds was 4 per cent, and the difference between counties which had large funds and those which had small funds was as usual equalized out of State taxes.

It will be recalled that the city of Mobile had been organized as a special or separate school district as early as 1826; that under the constitution of 1875 it was placed in a class by itself and all of its "special incomes and powers of taxation" recognized and affirmed until changed by the assembly; that this power of local taxation for schools given to Mobile by the constitution of 1875 was apparently given to no other. But other local systems were from time to time also provided by law for Montgomery, Selma, Huntsville, Eufaula, Birmingham, Opelika, Dadeville, Oxmoor, and Marion. These acts produced little more than convenience in administration. They established school districts with boundaries coterminous with those of the municipalities. Their school income was their pro rata share of county funds, increased perhaps by appropriations from general municipal funds. In only one case was authority given to levy a tax. The act creating the school district of Oxmoor (passed Feb. 9, 1877) provides:

The trustees, and their successors in office, shall have the power to levy a tax on all property, both real and personal, within the bounds of such school district not to exceed half of 1 per cent for school purposes; and for the first and second years, half of 1 per cent for building purposes.¹

There was little of this special school legislation in 1879 and 1881. In 1883 various acts of the kind were passed, some with, some without, the power of local taxation. Among the former were acts incorporating the Peabody district in Russell County, and Decatur district, each of which was empowered to levy a 5-mill tax, and in addition Decatur might "for the first and second years" levy "one-half of 1 per cent for building purposes." In 1885 Blountsville, Prattville, and Cullman were authorized to levy 5 mills, reduced in 1887 in case of Cullman to 2.5 mills, and Tuscaloosa 2.5 mills; in 1887 Opelika and Uniontown were permitted to levy 5 mills; Troy and Tuscaloosa, 2.5 mills; Birmingham, 1.5 mills.

The unconstitutionality of these acts is so manifest that it would seem they were intended to force an issue in the courts. Such an issue soon came. The authorities of Cullman levied the tax. There was objection, and the case reached the supreme court as *Shultes v. Eberly*, and was decided against the power to tax. The question at issue, as considered by the judges, was "whether, under the State constitution, it is competent for the legislature to delegate to the trustees the power to tax." The court then proceeds to limit the question at issue by saying:

We have thus limited the question, as we do not wish what may be said to be understood as applicable to school districts created within the corporate limits of a municipal corporation, where the power to tax resides in the municipal authorities, and is not in excess of the constitutional limitation.

¹ See School Laws, 1878, p. 46; reenacted in 1887, Laws of 1886-87, p. 1031.

The court declared that municipal corporations, including counties, are the only corporations under the constitution to whom the assembly may delegate its powers to tax; as this separate school district was in no sense a municipal corporation the act was unconstitutional.¹

By the same token it would appear that the cities might levy school taxes, and that the acts passed in 1887 and earlier for incorporated towns were constitutional. Nevertheless the attempt to avail themselves of this interpretation met with disaster. Under a law passed February 18, 1895, the city of Birmingham attempted to collect a special tax for schools. It was already collecting a municipal tax of 50 cents on the hundred, which was the constitutional limit, and for this reason the law provided that the school tax should be levied "on the same lists with other State taxes," and it was provided further—

that whenever the tax levied by the State shall exceed 55 cents on every \$100 of taxable property, then the tax hereby levied shall be diminished to that rate which, added to the rate levied by the State, shall not exceed 75 cents on every \$100 worth of taxable property, the limit fixed by the constitution [for State taxation].²

Stripped of verbiage this act simply meant that the city of Birmingham, having already levied the 50 cents per hundred allowed for municipal taxation and desiring to raise more money for schools, undertook to shift this extra tax from the city to the State lists.

Says the supreme court decision:

It was supposed * * * that this constitutional inhibition might be legally avoided by providing that the State should levy and collect the tax and pay the same over to the treasurer of the board of education.

Some taxes were paid under this act, but an appeal was made to the courts, and the case came up as *State of Alabama v. Southern Railway* (115 Ala., 250), with the result that the contentions of the State were defeated. In the first place the act was declared unconstitutional because it contained legislation on more than one subject which was not "clearly expressed in its title," and so violated section 2, Article IV of the constitution.

In effect the court declared it a municipal tax, and therefore violating Article X, section 7, of the constitution. If this act were allowed to stand—

it would effectually emasculate this constitutional prohibition. It would sanction the levy of a tax by the State for the purpose of public education in the city, which the city itself is prohibited by the constitution from levying and collecting, and which, if sanctioned as to one city might be extended to every other locality in the State, in overthrow of this fundamental law. It would allow a thing to be done indirectly which is forbidden to be directly done.

¹ 82 Ala. Reports, 242.

² Session law 1894-95, pp. 738-740.

In commenting on this decision Dr. J. H. Phillips, superintendent of schools in Birmingham, says, in a recent letter:

Several of these cities attempted to collect the local tax. The city of Birmingham did collect several thousand dollars. This fund was paid under protest, pending a decision in the courts, which of course was adverse, following the principle enunciated in the Cullman case. No local taxes for schools were successfully collected under the constitution of 1875.

And yet it does not appear that the courts ever passed on the direct question, either under the constitution of 1875 or of 1901, whether a city might not collect taxes directly for schools if it kept within the constitutional limit of 50 cents on the hundred allowed for municipal taxation. The cities have at any rate found it easier to get their money for schools under their general powers to tax.

From this time the separate school districts, including those to which the right to tax was granted in the special acts, obtained indirectly what they could not obtain directly. Under the constitution the counties might levy 50 cents per hundred for county purposes; in the same way municipal corporations might levy 50 cents per hundred for town purposes, but in the eyes of the constitution the separate school district had no standing; therefore the cities taxed themselves as municipalities, and as such assigned a part of the proceeds of these taxes to themselves as school districts. Unfortunately, however, miscellaneous demands were so heavy that little was sometimes left for the schools. Their reports to the State superintendent generally show a part of their school funds as coming from "appropriations by the district" or "appropriations by the city," seldom from direct taxation for schools. In this way, by this legal fiction, the cities and towns have been enabled to develop their schools, and they have thus made possible a school development in the cities altogether creditable. In 1887-88 the funds thus raised for schools in the districts were more than \$174,000; in 1889-90 they were estimated at more than \$200,000. With 1886-87 Maj. Palmer separated the reports of city and special school districts from those for country schools. The former could now begin to stand alone; the latter still needed support. This will explain the apparent shortening of the school term in 1886-87 to 70.5 days, as compared with the 87.25 days of 1885-86. The later year included only the country schools; the earlier year covered all schools and showed that the city schools had attained a school term (in 1887-88) of 180 days for both white and negro schools in Birmingham; 170 in Montgomery, Selma, and Huntsville; 160 in Tuscaloosa; 181 for whites and 204 for negroes in Eufaula; 200 for both in Decatur; 180 and 160 in Troy; 170 and 140 in Opelika; 120 in Brownville; 190 in Cullman; 178 and 163 in Prattville; 180 and 145 in Uniontown. The trouble was that these special districts served only a small part of the population. In 1888-89 only 17 such special

districts, not including Mobile, reported to the State superintendent. Of these 17 districts, 12 reported a school population of 14,261 white and 15,055 negro children; the enrollment was 5,444 and 3,718, respectively; the average attendance about 3,929 and 2,281, respectively. These figures are themselves sufficiently luminous. In none of these places does the school term seem to have been less than 160 days; in one it went to 200, and yet the enrollment on school population was only 31 per cent and the average attendance was only 20 per cent. It is evident that these schools needed something besides money.

During this period educational consciousness began to manifest itself in the better organization of teachers into associations, State and local, white and colored. These bodies held annual meetings, and, though poorly attended and treated with indifference by some of the higher educational institutions, preserved the even tenor of their way, discussed the problems of their profession, and emphasized and strengthened the demand of the State superintendent for more money. Teachers' institutes and reading circles were inaugurated while the professional and technical sides of the teachers' work were being examined and studied in the State normal schools, of which two more were organized for whites. At the end of Maj. Palmer's administration there were normal schools for the training of white teachers at Florence, Livingston, Troy, Jacksonville; and for colored teachers at Huntsville, Tuskegee, and Montgomery. These received their support mainly from the State, except Tuskegee (which even then was drawing on the philanthropy of the North), and to each the Peabody fund made appreciated and appreciable contributions, amounting in 1889-90 to \$3,800 for the seven schools. The normal institutes, of which two were held in 1889-90, were supported by the Peabody fund and were intended to arouse the people to the need of better teachers and better schools. They were intended for that class of teachers who could not attend normal schools and they offered courses extending from two to five years. The congressional institutes, organized, as the name implies, in the congressional districts, were intended to meet the needs of still another class of teachers, and the teachers' reading circles were to encourage home reading. The elementary character of this work is indicated by the books recommended for study: Barnes's General History, Page's Theory and Practice of Teaching, Watts on the Improvement of the Mind, Hawthorne's Literature. It was necessary to lay, first, a cultural basis, on which something of a professional superstructure might be reared. The professional spirit was hindered, no doubt, by the failure to grade salaries as well as certificates.

There was also the beginning of an educational press. In 1882 and 1883 the Alabama Progress, published in Montgomery, had

advocated education, prohibition, and kindred subjects. Then came the Alabama Teachers' Journal in 1886, published first in Huntsville, later in Montgomery. As its name implies, it was distinctly educational and served as an organ for the teachers of the State.

During this period, also, the graded-school idea began to make progress, especially in the separate or special school districts, which were now leading the State, both in the quantity and quality of their work.

Grading pupils brought up the question of textbooks, which was a serious one. The superintendent discussed a State or county system to prevent the numerous changes and multitudinous variations that afflicted teachers and drained the purses of parents, but the conservatism of the State and the spirit of local independence prevented rapid progress. There was some discussion, also, of a flexible course of study for the "ungraded country schools."

Other needs of the schools were better schoolhouses—for under the law no public money could be devoted to the erection or repair of buildings, or for furniture—longer terms, and better teachers. The system as a whole needed toning up, but to do this required money. This could be secured only by taxation, and to tax required an amendment to the constitution. To secure this required a long, slow process of education penetrating every section of the State, illuminating every corner, and enlightening every voter. With reconstruction before their eyes, the constitution makers of 1875 had been careful to hedge severely about the taxing power. Now that reconstruction was passed and the State restored to its normal self, they found these limitations a stumbling block on progress, which might be removed only when all advocates of education should work in harmony.

Private schools were still of considerable importance in the State; private contributions and subscriptions served to lengthen perceptibly the public term; and on these sources the public had to depend entirely for the erection and maintenance of schoolhouses, except in the separate school districts and cities, where this want was met by appropriations from municipal funds or by the issue of school bonds. The State superintendent advocated a general 3-mill tax and a 5-mill tax in the special districts. The cry was for more money, and with this it was thought all other good things would come to the schools. The question was no longer whether there should be public schools, but whether they should be in accord with the demand of the times. The report of the superintendent showed that the demand for improvement was based on a real necessity, since comparison of school accomplishments in Alabama with those of other Southern States showed up to the serious disadvantage of the former.

There was during the period no very material change in the school law, other than that regulating the school funds. By an act which went into effect October 1, 1887, these were again gathered into the State treasury, from which they were paid out to the teachers quarterly through the county superintendent. They had, under the law of April 19, 1873, been left in the counties to avoid their misapplication by the State authorities. They were now brought back to the State treasury to secure a greater centralization and a better accounting. The law covered all funds devoted to school uses.

Taken as a whole, this administration may be characterized as one of slow but steady progress upward. The class consciousness of teachers was awakening; there was more unity and harmony in their work; their influence was widening; and the cities were beginning to show, by extending and liberalizing their courses, the direct bearing of education on life. The causes of friction were being eliminated, and all parties were working toward an extension of the constitutional privilege of local taxation—the one thing most needed before there could be steady progress.

IV. THE HUNDLEY AMENDMENT AND AFTER.

Maj. Palmer was succeeded December 1, 1890, by Maj. John G. Harris, who served as State superintendent for four years, and issued three reports, two annual and one biennial. The educational event of the administration was the fight for what was known as the Hundley constitutional amendment. This was proposed by a joint resolution of the two houses of the assembly at the session of 1892-93 and provided that the assembly might—

confer upon the trustees of the school districts in this State the power to levy within their districts a special tax of not more than one-fourth of 1 per cent [2.5 mills], to be applied exclusively to maintaining the public schools in the districts in which said tax is levied.

It provided further that each race might receive back the proportion of taxes paid by it, but this provision was not compulsory. It was provided that this amendment should be voted on at the general election for representatives on August 6, 1894, and the activities of the department were shaped toward securing this result. In 1893 Supt. Harris organized an educational campaign, published a letter to the people of the State and showed that the weakness of the school system might be easily corrected by legislation; with "more money, longer school period, more trained teachers, and better school-houses," the schools would "soon be in the forefront of progress." The United States Commissioner of Education commended his zeal, applauded his efforts, and lent the weight of Federal influence. But all of this was rather in the interest of general education than of the

amendment in particular. In fact, judging from what little expression is found in official or semiofficial school organs, the school men were only lukewarm in its favor. A correspondent in the Educational Exchange declared that it was not so much money that was needed as local supervision, and he insisted that \$75,000 taken out of the school fund and devoted to county supervision would produce better results than the whole was then doing; another said that, while \$600,000 was the annual State expenditure, hardly more than \$200,000 was well used. The main force urging the amendment was the county superintendents. They organized themselves into a "Campaign board of education" for the summer of 1894, and held many public meetings, made many addresses, and strove to awaken the people to the opportunity. The State teachers' association said the proposed amendment was "a measure of great importance to all the people of the State and to the cause of public education in particular." They pointed out the fact that in all the States which had an adequate school fund the bulk of it was secured through local taxation, and after citing the right of local taxation in cities and towns under the constitution because they were municipal corporations, denied that there was a "valid reason why corporations should enjoy the privilege of local taxation because they are cities or towns and the same right be denied to rural districts because they are not corporations."

The Hon. J. L. M. Curry, agent of the Peabody fund, addressed an eloquent letter to the candidates for governor on the Democratic and Populist tickets, the burden of which was local taxation, the issue being in his opinion "more paramount than are the issues, Federal and State, which divide parties, local and national." He points out that the school term in Alabama was 73 days, and that 41 per cent of the population was illiterate in 1890, and adds:

This beggarly array does not fill up the dark outlines. These short schools are in many cases inefficient and inadequate, and the graduates of high schools even are three years behind the German graduates in the amount of knowledge acquired and in mental development. This inferiority is largely attributable to the shorter terms of school years, to the want of professional teachers, and to the small enrollment * * *. Rotation in office, narrow partisanship, inefficiency are the direct fruits of making school offices not places of trust, but spoils of political victory * * *. The State superintendent should remain in office long enough to be thoroughly familiar with the duties of his exalted position, and should be an expert capable of advising executive and legislature, and school officers and teachers, and in full intelligent sympathy with the educational problems * * *. Perhaps the argument most likely to reach the general public is the close relation between public free schools and the increased productive powers of labor and enterprise * * *. Education creates new wealth, develops new and untold treasures, increases the growth of intellect, gives directive power and the power of self-help * * *. The schools in Alabama are handicapped by a clause in the constitution limiting local taxation to an extremely low figure. If by general agreement among the friends of education

the removal of this restriction could be separated from party politics, and local taxation could be brought to the support of schools, there would soon be an era of educational and material prosperity.¹

By common consent the school amendment was not made an issue in this hotly contested campaign, for most of the leaders on both sides, including Col. William C. Oates, the Democratic, and Capt. Reuben F. Kolb, the Populist candidate, were generally favorable to its passage. Possible hostility for the fear that the propertyless might avail themselves of the opportunity to levy educational taxes on the rich was disarmed in advance by the requirement of a local vote for the enactment of the law; the fear that negroes might get too much was met by the provision that each race might, if it was so desired, receive what it paid. The amendment at best was merely permissive.

In perfect fairness, it can only be said that the support of the school authorities was little more than perfunctory. Certainly their grief over defeat was not profound. But the amendment had strong friends. Hon. Solomon Palmer was one, and Dr. James K. Powers was another. The latter was chairman of the "Campaign board of education"; he sought to organize the teachers; he spoke and wrote in its advocacy, even calling the school children to his aid by writing argumentative declamations for their use; he declared that schools would be at a standstill without it and became so enthusiastic that he said never before had "so much interest" been shown in an educational measure; he even prophesied its success at the polls. Another enthusiast appealed to metaphor and characterized the amendment as a "lion of learning."

But the chief support of the measure came from the editors rather than the teachers. They alone appear to have grasped its significance. One Birmingham editor said it was "the biggest thing since the war, in Alabama."

The Birmingham Age-Herald was frank in its review of the general school situation:

All this talk about Alabama's splendid public-school system is rot. Outside of a few of the larger towns, she has the very poorest school system and spends less money than any State in the Union. She is at the bottom of the list of 44 States. Her only hope to pull up is in the school amendment. (Aug. 1.)

In an ironical review it suggested that abolition of the schools was the easiest way to cut down expenses in Birmingham, and remarked, "Our people are asleep on the great question of education" (Aug. 4). On the day before election it said:

Rising above all partisan considerations in this campaign, fixed in the pure air of patriotism, love of our homes and our children, is the proposed school amendment."

¹ Letter in Report of Commissioner of Education, 1894-95, p. 1277.

And again:

Of all the 44 States in the Union, Alabama is the only one that doesn't have local taxation. (Aug. 5.)

"Cast a ballot for the Hundley amendment and have posterity to bless your memory," said the Greenville Advocate.

Other supporters of the measure were the Huntsville Argus, the Heflin New Era, the Cherokee Sentinel (Populist), and the Gadsden Tribune.

But the amendment met with an overwhelming defeat. The constitution required that an amendment to it should receive a majority of the whole vote cast. In Jefferson County 9,156 votes were cast for Oates and Kolb, and 3,519 for the amendment; no one there thought it worth while to vote against the measure. In Mobile County there were 4,049 votes for Oates and Kolb, 877 for and 834 against the amendment. In Bullock County the vote for the amendment was 1,917 out of 2,619, this being possibly the largest majority in its favor in any county in the State.

Hon. Oscar H. Hundley, the author of the amendment, was beaten but not cast down. He had worked for six years to get this bill through the assembly; he would try again.

The Age-Herald was chagrined and spoke plainly.

In the fight just closed the cowardly politicians held back and dodged. Even the friends of education were—some of them—browbeaten into silence lest speech might lose a vote. (Aug. 11.)

The Educational Exchange admitted that there had been neither marked hostility nor enthusiastic support:

There was no virulent opposition—there was no organized antagonism. * * * The sporadic attacks upon it were not of sufficient force to provoke an aggressive policy in its behalf. The measure died of indifference; died in the camp of its friends, the most cruel and ignominious fate that could have befallen it.

Beyond this preliminary fight to secure a more liberal clause in the constitution in the matter of local taxation for schools, there was little of moment in the period. The printed reports were brief and imperfect; the statistics were less in amount than usual, more incomplete, and practically worthless.

There were, however, some elements of progress:

1. The growing usefulness of the local and congressional institutes, which were increasing in numbers and in attendance. It was proposed to make the attendance of teachers on these institutes compulsory.

2. The law of 1890-91 made some changes in the administrative features, among them being a return to three trustees for the township in place of the one township superintendent. These trustees now apportioned the funds of the township to each school as they

deemed "fit and equitable," and this was interpreted as more favorable to the whites than the older law had been.

3. Another law of the session of 1890-91 placed on the market some 30,000 acres of "school indemnity lands," which had come to the State from the Federal Government "on account of swamp and overflowed lands, other public lands in Alabama sold or otherwise disposed of by the Federal Government" and acquired as a result of the State act of February 28, 1887.

4. In 1892-93 an act was passed establishing an Industrial School for White Girls. This was the culmination of various earlier efforts but represented a beginning only, \$5,000 being appropriated for the organization of the school.

The negro schools in general and the normal schools, white and colored, were reported as making good progress, and there was more promptness in paying the teachers. The lack of uniform textbooks gave trouble as did the question of the third-grade certificates. How to find the amount to be apportioned from the poll tax was also a problem. This was solved by making the poll tax of one year the basis for the next year's apportionment.

This administration was hampered by an unusually serious industrial and agricultural depression, by an exceedingly bitter factional political fight, with more or less hidden fear of possible advantages to the negro, and most of all by indifference.

Maj. Harris was succeeded by Hon. John O. Turner, of St. Clair County, who served for four years, from 1894 to 1898.

His early work included the codification of the school laws as amended and modified by recent assemblies. In its general character the new code did not differ from the old, but there was growing during this decade a recognition of the increasing ramifications of the public-school system. This system no longer included merely teaching of the three R's, nor confined itself to the primary and grammar grades, as had been the idea a generation before.

The grades of teacher's certificates were three: For the third grade applicants were to be examined on orthography, reading, penmanship, practical arithmetic through fractions, primary geography, and the elementary principles of physiology and hygiene; for the second grade, on all the foregoing and on practical arithmetic, history of the United States, English grammar, intermediate geography, and elementary algebra; the first grade required, in addition, higher algebra, natural philosophy, geometry, and the theory and practice of teaching.

To meet these growing requirements the normal schools had been recognized for some years as necessary. Beginning in 1873 they had increased in numbers and steadily developed in their scope and field of operations.

This code shows also that the direct bearing of education on life was more fully realized. In 1885 the assembly tried the experiment of establishing branch agricultural experiment stations with the location of a school at Uniontown, Perry County; in 1889 and 1893 others were established at Abbeville and Athens, and by 1895 six others, making nine in all, had been established in the various congressional districts; from merely agricultural experiment stations they were now being evolved into agricultural schools and were put under the control of actual farmers who were to purchase land and provide buildings. Their funds, however, were as yet very limited in amount, varying from \$2,500 to \$3,000. To correspond with this provision for boys furnished by the agricultural schools was the Industrial School for White Girls, first organized under the law of 1892-93 and located at Montevallo. Up to this time in Alabama as in other southern States the higher education of white girls had been without official recognition. White boys had been provided for in the Polytechnic School, at Auburn; negro boys and girls had been provided for some years with normal and industrial or vocational training at both Tuskegee and Huntsville.

The most marked tendency of the period in legislation was the creation of separate school districts, with special powers. Between 1876 and 1884-85 twenty-one acts of this character had been passed, some giving the power to tax to the separate district, some withholding this power; at the session of 1886-87 thirteen separate school districts were established; in 1888-89, twenty-five; in 1890-91 and 1892-93, twenty-three each; in 1894-95, twenty-five; in 1896-97 the number rose to nearly seventy; in 1898-99 it was about fifty.

The question of money was uppermost in the formation of these districts, but the supreme court decisions, in case of *Schultes v. Eberly*, decided in 1887, and *Alabama v. Southern Railway*, decided in 1896, stood as lions in the path of local taxation. In the act forming the Montgomery separate school district, passed February 27, 1887, it was met by providing that the city council might "appropriate" not exceeding 10 per cent of the gross revenue for the support of schools. The act of 1885 allowing Tuscaloosa to levy 25 cents is brought forward in the school code as if still in full force; the same amount might be levied in the Troy district; and 20 cents in the city of Gadsden. In fact the legislature was becoming increasingly more and more appreciative of the importance of the educational system and the financial needs of its administrators.

In 1894-95 it began to allow towns like Brewton to issue bonds for schools and schoolhouses; Montgomery and Opelika followed in 1898-99, and it even went to the extreme of permitting the county of St. Clair to levy a special tax of 10 cents for education (act of Feb. 18, 1895), so far as known the first of the kind in the State. St. Clair was

followed by Walker in 1896-97, also with a 10-cent tax, by Lamar and Fayette in 1898-99, with a 15-cent tax; by Chilton with a tax between a minimum of 5 and a maximum of 25 cents, and by Baldwin, which could levy enough local school tax to bring the whole county tax up to the constitutional limit of 50 cents per hundred, while another law of the same year allowed Madison County to set aside \$150 for county normal schools.

The act providing for the schools of Anniston, passed in 1891, seems nearly a model. The school board was required to make a report to the city council—

showing the amount of money required for the support and maintenance of the public schools of the city for the next ensuing scholastic year, and for the erection, rental, or repair of the necessary school buildings, together with a statement of the probable amount of money that will be received from the school fund or from any other source.

The city officers were then required to make an appropriation "to supply whatever additional amount may be necessary." They were not required to appropriate for schools more than 20 per cent of the gross revenue of the city, but might in their discretion appropriate larger sums, or make special appropriations for the erection, repair, or rental of schoolhouses.

This seems by far the most liberal of all these local laws, which while they did not always provide for local taxation, at any rate gave greater freedom and flexibility of movement, more liberty and independence, and whetted the appetite for better things.

As far as the routine of this administration goes, there is little to distinguish it from others. The superintendent deplored the slowness of subordinates in making their reports, which in turn prevented him from making his own report on time. He enumerated with some detail the principal grievances which were then delaying the progress of schools: Sickness in his own family; depression in business and stringency in money matters; delay in the payment of teachers; partisan politics; the grafting of new phases of education on the old system and the consequent lack of harmony between parts and need of readjustment; trouble in securing patents for school lands; uncertainty over the school census; and lack of funds for institute work.

Some of these troubles were important, some were not; some were removable by industry and organization; some were merely symptoms of an acute state of affairs, while others were chronic. All might be bettered by a skillful administration of the resources at command. The superintendent recommended, as a partial solution: That the census be taken in July instead of August; that some uniform way of selecting school officers be fixed and that they be paid; that the grades of teachers be reduced to two, and that their examinations be uniform and be prepared by the superintendent; that school money be allowed for the erection of schoolhouses; that the per capita apportionment

be increased from the then rate of about 75 cents to \$1.50, and that in order to provide the necessary money a constitutional amendment be passed allowing local taxation to districts, townships, and counties; that the local district trustees be reduced from three to one and that he be paid; that money for institutes be provided independent of the Peabody fund; that women be made eligible for school offices; and that all sixteenth section land matters be transferred to a special officer.

In the superintendent's report for 1897-98 the same troubles and the same recommendations appear, and to the troubles of the superintendent were now added smallpox and yellow fever. He was further crippled in his work by a shortsighted policy which employed him as a State superintendent of schools and then through "a too rigid economy" reduced him practically to the position of a mere clerk in his own department.

During this administration there was progress; the enrollment was larger and the cities were surely forging ahead. The superintendent claimed that the reports on education in the State were based entirely on the work of the public schools and that this accounted for the low rank assigned.

The State, however, was as yet indifferent, for, while the schools had been pleading for more money for 20 years, the rate of taxation had been lowered from 7.5 mills to 6 mills, and in 1890 to 4 mills. True, the school appropriation had been increased from \$130,000 in 1877-78 to \$350,000 in 1889-90, but all of this sum over and above \$100,000 was within the control of the legislature, and the feeling for economy which followed the reduction of the tax rate to 4 mills and a proper desire to avoid debt even produced a proposition to reduce the school appropriation to the constitutional limit; but, be it said to the credit of the State, such a proposition to halt the wheels of progress met little support, for the State was now almost ready to do openly and frankly those things of educational import which she had hitherto dared do only by indirection—lay State and local taxes for schools as such

Chapter X.

THE AWAKENING, 1898-1914.

I. THE BEGINNING OF A NEW ERA.

With the last years of the closing century the public schools of Alabama began to come into their own. At last they began to feel the pulse beat of modern life and to realize the wider outlook which characterized the times. The new superintendent, Hon. John W. Abercrombie, was an educator by profession and was able to analyze the situation, diagnose the trouble, and suggest the remedy. One of his earliest recommendations was that the law should require the superintendent to be an educator. Hitherto the superintendents had been public men, lawyers, teachers, patriots, but not educators. With the administration of Mr. Abercrombie begins the modern era of public education in Alabama, and his first report, which covers the biennium of 1898-99 and 1899-1900, shows a marked advance.

The assembly of 1898-99 made important financial progress, for it added \$100,000 to the direct appropriation, increased the total amount available as interest on the sixteenth section and other land funds, and on the initiative of the State superintendent levied a State tax of 1 mill, equivalent to 10 cents on the hundred, for the exclusive use of schools. This tax was legal, for the constitution of 1875 fixed the total amount of permissible tax at three-fourths of 1 per cent, or 75 cents on the hundred, with no limitations on how it should be applied. The increased legislative appropriation was first apportioned in 1899-1900, when it raised the per capita distribution from 73 cents to \$1.05. The next year, 1900-1901, the new State tax became available and raised the per capita distribution from \$1.05 to nearly \$1.50.

The school funds now amounted to more than a million dollars; but this was all that could be expected from the State as a State, "because the maximum limit of taxation authorized by the constitution has been reached." Then follows a plea by the superintendent for local taxation:

Then, if our funds are not sufficiently large, what shall we do? Shall we fold our arms and wait until Alabama doubles in wealth? If so, is it not likely to also double in population? * * * What we should do—what other States have done—what we must do, if we would properly qualify our people for citizenship, is to give to counties, townships, districts, and municipalities the power of taxa-

tion for educational purposes. If the people of any county, township, district, city, or town desire to levy a tax upon their property to build a schoolhouse, or to supplement the State fund, for the purpose of educating their children, they should have the * * * power to do it. * * * The right of local self-government is a principle for which the southern people, and especially the people of Alabama, have always contended; * * * yet, in the matter of providing for the education of our boys and girls, it is a right which the fundamental law of the State denies to us. * * * There should be no limit, constitutional or statutory, general or local, to the power of the people who own property to tax themselves for the purpose of fitting the children of the State for intelligent and patriotic citizenship.

During this administration the work of creating special or separate districts by law continued, but not at the same rate. Since these districts were not municipalities, they could levy no tax; but the social advantage which came from this rearrangement of territory in accord with the topography of the country more than justified the break up of the old township system with its straight lines and multitudinous transfers of children for the purpose of individual convenience.

The town systems were being extended and strengthened, and the cities, like Bessemer and Birmingham, began to issue bonds for school buildings.

In 1899 a general law was passed which sought to correct the many evils that had grown up around the old system of separate county examination of teachers. Under the new law, while the examinations were still held in the county, they were prepared and the papers read by a State board of examiners, through whom came all certificates to teach. By the requirement of examination fees the system was made more than self-sustaining. The requirements of the several grades were not essentially different from those in the law of 1895. Alabama history and composition were added to the second grade and the school laws to the first. Under this law the third-grade certificate was good for two years and could be renewed once; the second-grade for four years with one renewal. The result was a succession of untrained teachers who got a little experience in the school room and then retired to give place to others untried as well as untrained; but still the new law was better than the old, for it tended to encourage improvement.

The question of textbooks had long been a serious one. When individual choice had run to a length that was no longer bearable, county uniformity was tried and found to work well in 17 counties. The same idea was then applied to the State as a whole, and in 1901 there was created a "textbook commission" "to procure for use in the public free schools in this State a uniform series of textbooks."

The congressional district agriculture schools as first organized had been a partial failure, for they tended to develop into the orthodox literary academies.

These schools are not in all respects what the general assembly creating them evidently intended they should be, viz, high schools in which the agricultural features would predominate. Most of them have been made high schools in which the literary feature predominates.

Latin and Greek, French and German, music and art, history and philosophy had usurped the place intended for practical subjects. Some schools even undertook collegiate work. But this unforeseen development showed that there was as yet a gap in the State system between the primary grades and the college which had not been supplied and for which there was evidently a growing demand. These agricultural schools were entirely under local control; therefore they took such direction as their patrons desired. They became also the objects of factional strife, town jealousies, political and personal prejudices. The law governing them was so amended in 1903 that one composite board controlled them all and so delocalized their administration. In 1901 the minimum length of school term was fixed at five months, during which time "the free public schools of the State shall be kept open absolutely free of tuition fee." This meant that if the public funds were not enough to provide a free school for that length of time a supplement sufficient for that purpose had to be made up by the patrons or there would be no school in the district.¹ It would appear also that this was the first time since reconstruction days that all the schools were absolutely free to all the children for a fixed period of time. Hitherto in many counties it was the custom, says the superintendent—

for teachers to charge a tuition fee and credit each patron with his pro rata of the public funds. Many people who are unwilling or unable to pay the fee kept their children at home. It is true that those who will claim the privilege may send their children free for as long a time as the public funds will run the schools. Rather than enter their children as the children of parents who are unable or unwilling to pay the fees assessed, many persons let them remain out of school and grow up in ignorance. This system is evidently against the policy of the law.

County supervision was still weak from the lack of education and experience in the superintendents and the smallness of their remuneration, but was making progress in intelligent comprehension and grasp, as their reports show. Another defect in the law was that it made no provision for building schoolhouses. This was still a purely private and voluntary matter which fell upon a few public-spirited men or else—

some old log church or other dilapidated building is frequently used. Often it is a building without desks, tables, windows, blackboards, maps, charts, stoves, and with backless benches. Children are expected to take pleasure in attending school under these uncomfortable and unattractive conditions.

¹ If the five months' term was found "absolutely impracticable," it might be made four months. (See the law of Mar. 5, 1901.) As later laws require that the school term shall be uniform in the county, the minimum requirement has been abandoned of necessity.

The superintendent continues:

I have urged the grading of schools, but as the law does not require it, I have been unable to enforce it. The common schools should be classified as first, second, and third grade, according as they are taught by first, second, or third grade teachers * * * In the school conducted by a third-grade teacher, only third-grade branches should be taught. In the school conducted by a second-grade teacher only second and third grade branches should be taught. In the school conducted by a first-grade teacher, all the common-school branches should be permitted to be taught. Under existing laws * * * a third-grade teacher may teach a second or first grade school, and either may essay to teach college and university branches, which they frequently do.

It was urged that salaries be based on the grade of teacher's certificate held. Compulsory education was discussed, for only about half the children of school age were enrolled, and of these 25 to 50 per cent did not attend regularly.

The recommendations of the superintendent in his report for 1898-1900, based on the situation as it then was, included:

That the power of taxation be given to counties, townships, districts, cities, and towns.

That the poll tax be assessed and collected by school officials and that the laws governing this be made more rigid.

That after the funds were apportioned to the counties, on the basis of school population, they should be disbursed on that of average daily attendance.

That qualified county superintendents be provided by law, that their pay and length of service be increased, and that they be required to devote all of their time to school work.

That the State board of examiners conduct all teachers' examinations and that a minimum general average and a minimum branch grade be provided.

That means and methods be provided for building and furnishing permanent and suitable schoolhouses.

That schools be classified according to the grade of the teachers; that it be made illegal to teach branches higher than those upon which examinations had been passed; and that salaries be regulated by the grade of the certificate held.

That absolutely free schools for five months be required; that this requirement regulate the number of schools in the township; that supplementary funds given by patrons be used to lengthen the free term.

That when the schools have been made free and available to all a compulsory law for children from 7 to 14 years be enacted and that the question of uniform school books be considered by the assembly.

That since the district agricultural schools had largely failed, having developed into "high schools in which the literary feature predominates," they should all be placed under a single board of control, thus eliminating local influences.

That a central board "be created for the purpose of ascertaining and publishing what schools are prepared to do the work upon which degrees can safely be granted, and that no school be given the power to confer degrees unless it measures up to the standard fixed."

That an unconditional appropriation be made for summer normal schools and that the counties be authorized to make annual appropriations to the same.

Some of these recommendations bore fruit immediately. Through the prompt action, of the assembly, they became laws before the

expiration of Mr. Abercrombie's term of office and have been discussed as such, but up to the stature of others the State has not yet grown.

In concluding his survey for the two years, the superintendent says:

In order to keep abreast with the educational thought and progress of the country, I have attended many educational gatherings—county, State, southern, and National. * * * During the past two years a great interest in the cause of public education has been aroused among the people. Within that time difficulties have been overcome, hope has taken the place of discouragement, indifference among the people has vanished. The amount of funds available for common-school purposes has been increased more than 50 per cent; the qualifications of teachers have been raised; incompetent teachers have been eliminated; county supervision has been improved; township trustees have been more attentive; schoolhouses have been made better; a demand for a qualified county superintendency has been created; the school enrollment has been largely increased; teachers' institutes have been held more regularly; and a spirit of educational progressiveness has been aroused among the people. The outlook is most encouraging.

Again he says:

Teachers have been paid promptly. The efficiency of the teaching force has been advanced beyond estimate. The school term has been lengthened almost 50 per cent. The daily attendance has been greatly increased. Educational interest among the people has received a wonderful impetus. School officials have been more prompt in the performance of their duties. A general public school revival has been conducted.

There was "less discord and more interest." The awakening had come.

But it should not be assumed that this change in educational sentiment was altogether the work of two years, or of a single man. More accurately, it was the result of the work of many laborers extending over many years. The State was now recovering from the long-lasting effects of war; having recovered from war and again attained to a degree of financial independence, it began to answer the call from within to a newer and broader life. The quickening effects of this broader outlook; increased financial resources; a realization of the real educational position of the State, despite the flattering glosses of politicians; increasing self-consciousness and enhanced self-reliance, together with a forward-looking superintendent were the things that made for this educational renaissance. Let it be understood also that these things came in spite of constitutional limitations, as will be shown in the next section.

Mr. Abercrombie resigned the office of State superintendent July 1, 1902, to become president of the University of Alabama. His unexpired term was filled out by Harry Cunningham Gunnels, who published the report for 1901-2. He continued the work as outlined by his predecessor, and renewed most of the recommendations of the earlier report.

II. THE CONSTITUTION OF 1901.

The State of Alabama adopted a new constitution in 1901, and it went into effect November 28 of that year. It is marked for what it did in the matter of educational legislation and for what it did not do.

The limitation on the total amount of tax that might be levied by the State was fixed at 65 cents on the hundred, as compared with 75 cents in the constitution of 1875. The earlier instrument left the assembly to divide this as it pleased; the later one says 30 cents on the hundred shall be levied for public schools (par. 260). The new constitution thus put into the organic law, accentuated and emphasized, a principle which lay at the bottom of the annual lump-sum appropriation made by the assembly since 1875 in accord with the constitution of that year, and which in 1899 had crystalized into a general State tax of 10 cents on the hundred for public schools. It here recognized and formally granted a demand for more liberty in the matter of taxation which, by implication and exercise, adhered in the old. It took from debatable ground and made constitutional a tax which, while already exercised by the State, was at best of questionable legality under court interpretations of the constitution of 1875. By making imperative the 30 cents per hundred tax for the use of public schools it changed a lump-sum appropriation that had to be struggled for at every recurring session into a perpetual gift, which grew automatically with the increasing wealth of the State. The last year under the lump-sum arrangement, together with the 10-cent tax (1903-4), produced \$831,210; the first under the constitutional provision (1904-5) of 30 cents produced \$880,545. This first increase in dollars was insignificant, but the moral effects of the law, by the removal of uncertainty, by the security arising out of a constitutional provision, and the certainty of future growth, were very great. In 1912-13 the 30-cent tax had increased to \$1,565,472. In 1913-14 it was \$1,734,302.

The new constitution granted to the counties power to levy a total county tax of 50 cents on the hundred; of this amount it was now formally provided that 10 cents on the hundred could be levied for school purposes. This school levy might increase the total tax levy from \$1.15, the new constitutional limit, to \$1.25, the old limit, but could be levied only when three-fifths of the qualified voters favored the increase. (Par. 269.)

By implication this right had adhered in the old constitution. At any rate some of the counties acted on the supposition. In 1895 the assembly had passed an act allowing St. Clair County to levy 10 cents per hundred for schools. This was followed in 1898-99 by Walker (10 cents), by Fayette and Lamar (15 cents each), and in 1900-1901 by Baldwin, which was to have a graduated county school

tax beginning with 5 cents on the hundred and increasing to 20 cents.

It was understood that these counties had the right to levy this tax under the constitution, for the new tax kept within the constitutional limit, but it was also thought that without legislative permission they could not appropriate the money thus raised to the schools, hence these special acts. The new constitution made this clearly marked tendency in the more progressive counties apply to the whole State. It thus recognized the trend of the times. It yielded to an imperative demand from the people.

In the matter of cities, towns, villages, and other municipal corporations the total tax limit was fixed by the new constitution, as by the old, at 50 cents on the hundred, and excluded, under the interpretation of the supreme court, a tax for schools as a part of the general power to tax. To Montgomery was now given the power to levy a special tax of 75 cents for the interest and principal of the public debt, for public schools and public conveniences; Decatur might levy 50 cents for "public schools, public school buildings, and public improvements"; while New Decatur and Cullman might levy a similar tax "for educational purposes." (Par. 216.)

Another phase of the new constitution which made for democracy and decentralization, but not for the continuity of school development, was the clause which declared the State superintendent to be ineligible as his own successor. (Par. 116.)

To summarize: The State tax of 30 cents was made obligatory; the county tax of 10 cents was optional; the municipalities might tax (i. e., appropriate) for schools under their general, not under special, power, while four named municipalities were given special powers to exceed the constitutional limits. None of these powers, except those to the four cities, were new. They were all embraced, by implication at least, in the old constitution of 1875, and were exercised as a part of the general taxing powers of municipalities. They had been acted on as implied powers, and as such had not come up for consideration by the courts. Public-school education in Alabama owes something to the constitution of 1901, but the framers of that instrument were the followers, not the creators, of public opinion. They wrote into the new constitution principles which had been worked out under another name, proved out in practice, and for which there was imperative demand. They did not touch the phase of the school question which was of vital importance, which is of paramount importance to-day and toward which all Alabama education tends—the question of direct taxation for schools in towns and municipalities and in the local units. For this failure there were reasons. So far did the constitution makers fail in this vital principle that the ink on the new document was hardly dry before the State

superintendent began agitation for an amendment. He says in his report, dated September 30, 1902:

An amendment to the constitution should be submitted allowing school districts to levy a local tax for school purposes whenever the people of the district desire it. The schools of Alabama can never rank with the schools of other States until provision is made for local taxation.

III. CONTEMPORANEOUS CONDITIONS AND PROGRESS.

The constitution of 1901 changed the sessions of the legislature from biennial to quadrennial and provided that no State superintendent should be eligible to succeed himself in that office. Mr. Gunnels was succeeded by Isaac William Hill, who had been long engaged in educational work.

There was during his administration but a single session of the legislature. It passed, however, important school legislation, including the creation of the State textbook commission and the reorganization of the administrative boards of the agricultural schools. These laws have been discussed already as a part of the previous administration.

A general law was passed (1903) allowing municipalities to levy, provided they kept within the constitutional limitation of 50 cents on the hundred, a special tax of one-fourth of 1 per cent for the purchase, maintenance, and improvement of school property and "the maintenance of public schools."¹

Another act, passed by this legislature on October 1, 1903, provided the machinery in accord with which the counties were permitted under the new constitution to levy the special 10-cent tax for public schools. By address and the aid of a banquet at which all the leading men were present Jefferson County, in which Birmingham is located, was induced to lead the movement in voting the tax. Walker, Talladega, Union, and Tuscaloosa followed Jefferson, and within the next three years 32 others adopted the tax and the proposal was defeated in 4. The total number voting the tax prior to September 30, 1906, was 37; in most of these the law was a success; such opposition as had developed soon disappeared, and the superintendent makes the remarkable statement that "the people seem actually to have fallen in love with voting taxes on themselves for school purposes."

But the most important, the most wide-reaching, and revolutionizing in its influence of all the acts of 1903 was that for "redistricting the public schools of the State and for the management and control of the same."

We have seen that, beginning about 1876, the custom of creating separate or special school districts had been a growing one. Under

¹ Laws of 1903, pp. 398-399.

the constitution these districts could not levy a tax, but the topographical arrangement of the new district was a great improvement over the rectangles of township lines in the matter of convenience, and, through the trustees who directed them, these separate school districts made for local school government. This principle of school organization, as we have seen, grew to considerable proportions in the early nineties, and by the law of September 30, 1903, was practically extended to the whole State. Briefly, this law provided that "township lines for school purposes * * * are hereby abolished." County redistricting boards were created and instructed to lay out their counties anew "into public school districts according to centers of population and natural barriers"; every child was to be, if possible, within $2\frac{1}{2}$ miles of a schoolhouse, and no district was to contain less than 15 school children. For each of these new districts there was to be elected a local board of three trustees, who were to take the school census, care for school property, employ schoolteachers, visit and report on schools, and have general management and control. Chairmen of these local boards were to elect four county trustees who, with the county superintendent, were to make up the county board of education, in whose hands the county school system was placed. It was enacted further, as a sort of reward for diligence in well-doing, that when any district had provided a graded school system for all children of school age for not less than eight months in the year they might elect five district trustees instead of three and "assume entire control of the public schools therein," only reporting to the county authorities. The county superintendents were made fiscal and disbursing officers and were paid 4 per cent of their disbursements up to \$1,800 per year. The act was not to apply to "any county heretofore districted by law and which has a special levy from the county for the support of the public schools or to school districts heretofore established by law." Each incorporated city and town was also made a separate school district, and so the whole State was thus reorganized on the basis of population and natural barriers, a result which should have been reached long before.

The county now became the basis of administration, instead of the township, and each school in the county was to be kept open as nearly the same length of time as might be. Under the old township law grievances had arisen, especially in the black belt. Among these was the pernicious practice of paying to parents their pro rata of the public school fund should they for any reason feel disposed to keep their children out of the school. This custom had its roots deep in those laws of ante bellum days which had to do with the distribution of the sixteenth section funds and now produced social injustice when administered by unscrupulous county officers, if allowed to

pass the scrutiny of the State officials in Montgomery. Says the State superintendent:

Under the old law there was no one who had direct control over the common schools of the counties, and "sharp practices" sprang up which were perverse of the spirit of public education. To illustrate: One township in a county not only ran its public schools eight months with a first-class teacher, but also defrayed a considerable portion of the expenses of boys and girls off at college, while another township in the same county did not secure sufficient funds to run its schools four months. The new law not only equalizes the school term, but also enables school officials to detect attempts, should they be made, to pay the expenses of boys and girls in college out of school funds.

Under the county system law there was much less inducement to pay funds to parents than there had been under the old township law. Under the old law a term of four months would meet the minimum legal requirements; under the new all schools in the county must be of the same length. Payments to parents reduced the school term of the whole county, and as the unit of administration was enlarged the number of men who would resent such injustice was increased.

With this brief summary of the new school legislation of the State goes a review of educational progress for the period.

There began to appear during this period a well-defined effort, steady and long continued, conscious and emphatic, to develop a professional consciousness. This was manifest in the increased interest in and the growing resources available for the normal schools. The University of Alabama began a summer school. Reading circles, county teachers' associations, and other agencies were making for increased professional training, although the county institutes had not as yet been so systematized as to be of much service. While this progress was making on the professional side, the higher schools were making good on their special lines. The Girls' Industrial School, at Montevallo, while still hampered by lack of funds and accommodations, was using to advantage what it had; and the agricultural schools, after being separated from the six lower grades, were now to a large extent delocalized and were turning to the agricultural and other practical work for which they had been intended. To these schools there was now added at the Alabama Polytechnic Institute a summer school for farmers. The first session was for 10 days only, but the attendance reached 400.

The new law regulating the examination and certification of teachers worked successfully. It encouraged the upper grades, and the State was soon unable to meet the demand for first and second grade teachers. It was estimated that the standard had been raised already 50 per cent since the passage of the law. Another change for the better was the payment of teachers monthly instead of quarterly, but "the average Alabama schoolhouse" was still "not

only a disgrace to the community in which it stands but a disgrace to the State," and under the law not a cent of public money could be used for school buildings or for incidental expenses, but was all apportioned on the basis of school population. The day of the schoolhouse did not come till the organization of the Women's Association for the Betterment of Schoolhouses. A revision of the school census made under the act of 1903 showed the rolls padded to the extent of 28,218 pupils. The old school census showed 707,269, which was reduced by the newer and more careful enumeration to 679,051.

Under the new constitution the school funds increased in direct proportion to the taxable wealth of the State. But this constitution had at the same time dealt a temporary blow to the poll-tax fund. This fund was apportioned to the race which paid it, but the negro, being no longer allowed to vote, declined to pay the poll tax, and this tax dropped from \$156,043 in 1900-1901 to \$89,810 in 1904-5. A better system of collection, however, raised it to \$179,095 in 1911-12.

The recommendations made in Supt. Hill's second report show that the schools were advancing. He urged that the public school be graded so that the whole of the school work might be correlated and articulated from the primary through the higher schools to the university; that at least one high school in each county be established; that a supplementary State appropriation of \$300,000 be made for schools and \$50,000 for school buildings; that an amendment to the constitution permitting a school-district tax be submitted by the legislature, because the available funds were still insufficient for a 5 months' school taught by even a third-grade teacher, without private contributions to supplement the public funds.

The reports of the county superintendents reveal more business and educational qualifications than had been the case in earlier years. The type of the men engaged in education was rising all along the line. There was progress in quality as well as quantity. Professional consciousness was developing.

The effects of the county tax, which usually increased the length of the term a month, began to be visible; some of the towns (as Girard, in Russell County) were allowed to vote on bonds for schoolhouses; Dothan furnished books as well as tuition and made the whole absolutely free; while some of the counties, as Henry, still had to assess an entrance fee on each child to make the funds hold out; Escambia levied the State tax of 30 cents for schools, then a county tax of 20 cents,¹ and was ready to levy the additional tax of 10 cents

¹ This 20-cent tax was permissible because the total county levy without it did not exceed 30 cents on the hundred.

permitted by the constitution. Surely this county at least was finding itself.

Mr. Hill was succeeded in 1906 by Hon. Harry C. Gunnels, who completed his term of service in 1910, and gave place to Hon. Henry Jones Willingham. He became president of the State Normal School at Florence in 1913; his term was completed by Hon. William F. Feagin, who in December, 1914, entered upon a new term of four years.

In recent years the character of public education in Alabama has been changing radically. It is no longer a mere matter of teaching the three R's, but a wider and broader idea of education has been evolved and has given character both to State legislation and to the State superintendent's reports. The work of the department has become more systematized; the successive administrations are better articulated one with another; personal equations count for less; and the superintendent no longer dominates the system in accord with his own ideas, as was entirely possible in the earlier days when the machinery of the department was less in amount and less complex in character. He is no longer the system, but the head of a system to which he seeks to give direction; the individual is less; organized society as expressed in public opinion and public organization is more, and is now reaching out into related and soon to be correlated fields of educational activity.

This personal domination of the superintendent which characterized the administrations of the past was nowhere more evident than in the annual reports, and nowhere else does this individuality retain its hold with such tenacity. It would seem that here at least no effort has ever been made to standardize the reports in such a way as to make out of the whole series a single connected whole. Their use causes the student constant difficulties, for hardly are any two alike. Each superintendent's reports are dominated by the personal equation. They vary in form and content, in fullness and accuracy. They sometimes give two or more sets of figures for the same thing and agree neither with themselves nor from year to year. The many blanks left in the tables are presumably beyond the power of the superintendent to remedy, but certainly not so the long columns which are untotaled. The various items are not treated uniformly, and one which may be fully reported for two or three years is then dropped altogether; hence it becomes next to impossible to trace any particular line of school development with that minuteness of detail sometimes necessary, and any statistics based on these reports can not at best be anything more than approximate. In 1906-1908 the superintendent's report is made up entirely of the statistics and narrative reports from the counties. There is no attempt to interpret these local reports or to give an idea of any connected educational

development during the period. This characteristic dominated also the reports for 1909 and 1910, but the next superintendent did not print the county reports as a series of local disconnected systems, made up of isolated, independent, and more or less uncorrelated fragments, but undertook in his report to interpret the tendency of the times, to present the evolution of public school education as a whole, and to point out its rapidly changing and broadening character.

Nowhere is this evolution in the character of education more visible than in school legislation, which more than ever begins to concern itself with higher, technical, and industrial education. Witness the educational acts of 1907 and 1911, which have little to do with the schools in the narrower sense, except as to the usual routine appropriations. They deal with broader issues: To aid and extend the field of technical education; to provide for industrial schools for boys and girls; to sell university and other school lands; to establish more normal schools; to appropriate for the deaf and blind; to provide funds for medical education; to define and provide for delinquent children; to widen the usefulness of agricultural, girls' industrial, boys' trade and industrial schools; to provide for the higher colleges and the university; to form farm-life clubs and encourage farm demonstration work; to establish high schools, Negro reformatories, etc.

During these years the superintendents' reports discuss, besides the various phases of education in the narrower sense, like enrollment, attendance, schoolhouses, local taxation, compulsory attendance, graded schools, teachers' certificates, etc., such cognate and kindred subjects as: The supervising of rural schools; school-improvement associations and their activities; rural lyceums and libraries; county high schools and inspectors of the same; agricultural schools, normal schools, county superintendents, etc.

As in the past, so now, enrollment and attendance are matters which call for serious consideration. True, as will be seen by reference to the statistical appendix, the enrollment and attendance are both growing in absolute numbers, but the relative increase is small, and there are still a few county superintendents who are content to quote platitudes about trusting "that the people of Alabama will never so far forget their duty to their children as to require penal statutes to force them to comply with parental duties," but others of their number realize the situation and see the remedy as clearly as the State authorities. Says E. R. Harris, county superintendent of Lamar, in 1908:

Education in Alabama is too partial as to the number reached—too little adapted to the various needs of our population. If we would restore respect for authority, obedience to law, prevent frauds, political corruption, oppression of the poor, and save the State we must have universal education. To secure universal education, regular attendance * * * must be required by the State.

Two years later E. C. Glover, superintendent of Henry, wrote:

I also favor free textbooks for the public schools of Alabama. I believe that the State ought to furnish the books along with the money to pay the teachers. Then when we have free schools, when the schools are free in truth as well as in name, compulsory education would not penalize poverty, and many who now oppose such a law would give it their hearty support.

Says the State superintendent in 1910-11:

Perhaps we have no right to expect a larger proportion of our young people to attend school when this question is determined absolutely and only by the will of the parents and children themselves.

If we take the reports of the superintendent for the last three years and interpret them in the light of this remark, we shall find that the enrollment in 1910-11 was 73 per cent of the school population; in 1911-12 it was 72 per cent; and in 1912-13 it was 74.7 per cent. For the same years the average attendance was 63 per cent, 61 per cent, and 60 per cent, respectively, of the enrollment. Now, if we translate these percentages of enrollment and attendance into dollars, we shall find them equal to 63/100 of 73/100, 61/100 of 72/100, and 60/100 of 74.7/100, or 46 per cent, 44 per cent, and 45 per cent. All of which means, assuming the present force of teachers able to handle the total school population if in actual attendance, that the State received 46 cents for each dollar spent in 1910-11, 44 cents in 1911-12, and 45 cents in 1912-13.

This measurement is of average attendance in dollars. Now consider it in length of school term. The actual term in 1910-11 was 127 days, in 1911-12 it was 132 days, and in 1912-13 it was 133 days. But since the per cent of the total school population in regular attendance was only 46 per cent, 44 per cent, and 45 per cent, respectively, the true length of term was 57.4 days in 1910-11; 58.08 days in 1911-12; and 59.85 days in 1912-13.

These figures are based on the total enrollment and attendance for these years. It includes cities and high schools, but excludes private and denominational schools, and is confined to the whites, for they are the more favored and represent the high-water mark of both intelligence and capacity. If negroes were admitted into the calculation the figures would be still less favorable.

The inevitable conclusion, therefore, follows that, at the present rate of enrollment and attendance, the State of Alabama may continue to pour money as water into these depths of inefficiency and never get back more than 45 cents on the dollar. If the State wishes to recover from this condition of educational bankruptcy, she must not only increase the length of term, but increase the per cent of the equally important factors of enrollment and average attendance.

The above is a consideration of efficiency as measured in attendance and length of term only. If we subtract also the efficiency lost to

instruction in the school by the interruption of classes we may find that the standard of efficiency actually attained under this system of perfect freedom is perhaps only one-third, possibly only one-fourth, of what might be attained under the intelligent administration of a compulsory law.

No wonder the superintendent declares:

The conclusion seems irresistible that Alabama without much more delay will be compelled to enact a reasonable compulsory-attendance law, and thus follow in the footsteps of all but a half dozen of the States of the American Union * * *. Public sentiment in this State appears to be growing strongly in favor of a law requiring compulsory attendance * * *. Such a law will be popular and greatly beneficial.

In his report for 1912-13 he enters into an estimate of the additional expense that would be entailed by compulsory education:

The overwhelming majority of our public schools, especially in the rural districts, are crowded for only a few weeks in the middle of each winter session. A teaching force which is sufficient to care for this crowded condition during less than half the session is employed in almost all cases for the entire session, and, therefore, if those who now enroll in school were required to attend regularly, the additional cost of maintenance, so far as they are concerned, would be practically nothing. The only additional cost in the maintenance of sufficient school facilities to care for all the children who ought to be required to attend would apply only to those children who are not now enrolled and who have not been in the habit of attending any school whatever. * * * An investigation of the subject fails to disclose any State or any civilized country which has repealed a compulsory education law. * * * It is modified from time to time, usually extended in its scope and in its requirements.

The legislature of 1911 passed three laws which serve to unify the general administration of the schools. One of these defined and extended the duties of the county superintendent. He was required to keep an office at the county seat, to visit all the schools in his county, to examine into the condition of school funds, and to make monthly and annual reports. He was to be paid 4 per cent on disbursements, and if employed on full time might be paid a fixed salary of not less than \$1,000. This law went into effect October 1, 1913. Another law provides that the county board of education "select annually some suitable person in the county to act as treasurer." This choice has usually fallen on some local banker who has been willing to perform the duties of the office in exchange for the advantage of the deposit of county school funds. He pays the teachers monthly.

Another law (Apr. 18, 1911) defined the qualifications necessary for teachers' certificates:

For third-grade certificates applicants were to be examined on orthography, reading, penmanship, grammar, practical arithmetic, United States history, geography, the elementary principles of physiology and hygiene and agriculture, theory and practice of teaching.

For second-grade certificates, in addition to the above, additional requirements in arithmetic, history of Alabama, English grammar and literature, intermediate geography, United States history, and civics and class management.

For the first grade, in addition to the above, algebra, geometry, physics, elementary psychology, the school laws of Alabama, and advanced English.

For life certificates, the history of education.

The result of the law governing examination of teachers, granting certificates, and grading salaries according to the certificates held has been a gradual rise in the capacity and training of the teachers and a tendency to gradually eliminate the lower grades, but the salaries are still discouragingly low, and the cheapest man is still almost the universal favorite. In 1912-13 male white teachers received on an average \$429; women received \$346. Among the negroes men received \$191 and women \$153. This indicated a general increase all along the line, except in the case of negro women, who fell back \$2 per month. Said the superintendent in 1911-12: "Alabama receives to-day more than \$40 a month for her convicts, or approximately \$500 gross income from each convict hired. This is considerably more than is paid for the services of the average public school teacher in Alabama." Then he naively adds: "This statement of fact is not made as a suggestion that teachers should leave off teaching and become convicts," but it does present for the consideration of patriotic citizens the further fact that the State as an owner esteems more highly the labor of its negro convicts than as an employer it does the services of its white teachers.

The superintendent's report for 1913-14, moreover, shows a further widening of the difference between the pay of city and rural teachers. White city men teachers received an average of \$1,032 and women teachers an average of \$533 as against \$337 and \$293 for rural men and women teachers, respectively. For negroes the figures were \$355 and \$262 as against \$132 and \$123. The salaries of rural teachers have decreased while those of city teachers have increased. The superintendent adds:

It is only fair to conclude that the best teachers of both races will gravitate toward the cities and towns more strongly than ever unless our present salaries are increased, and any thought of decided improvement along the lines indicated above will make it clear that we shall never have the funds until our constitution is so amended as to make it possible for us to provide them by local taxation.

Along with the questions of better teachers and better salaries for teachers is bound up another on which these of necessity rest. The question of resources is still the burning one in the State. School funds are still insufficient to meet legitimate school needs. Up to October 1, 1912, the 10-cent county tax allowed by the constitution

of 1901 had been voted in 44 of the 67 counties for such length of time as suited the people. In a few counties the tax was proposed and defeated. In one or two it was tried and then abandoned, the result being manifest injury to the schools; in another it was changed from schools to roads. But even when in operation this tax does not supply sufficient funds, and both towns and counties have from time to time gotten around its limitations. In 1901 Escambia had been required by law to levy for the year 1901 and for "each year thereafter" a special school tax of not less than 2 mills of the total county tax which was to be "used for the support and maintenance of the public schools."¹ It will be noted that this act antedated the constitution of 1901 and exceeded the limits provided by that instrument. Again, it is found that Baldwin levied in 1909 a 3-mill tax for schools and thereby won the distinction of being the only county in the State at that time whose local funds exceeded the general fund from the State and the poll tax combined.²

In the case of Mobile, which has since attained the same rank, a loss of some \$37,000 in annual revenue was sustained about 1909 as a result of the cutting out of liquor license fees when State prohibition went into effect. It was necessary, therefore, to retrench the activities of the schools, increase fees and levy a 2-mill tax to get more school money. In 1912-13 this was reported as \$124,250, the largest in any county, except Jefferson, which that year received \$189,450 from a similar source. In 1909 Girard, Seale and Hurtsboro resorted to a bond sale to raise money for building schoolhouses; in 1910 Jackson County and Thomasville, Clarke County, did the same, but all of these makeshifts could not produce as much money as was needed for the schools. In 1908 public income was supplemented from private sources, by fees or contributions, to the extent of \$299,481; in 1909 it was \$286,000; in 1910, \$255,000; in 1911-12, \$310,084; in 1912-13, \$354,702; and in 1913-14, \$429,605. Hand in hand with the subjects of compulsory attendance, efficient supervision, and general development goes their complement, the question of local taxation. These four are the paramount issues in the educational world of Alabama to-day. Being more concrete and tangible, local taxation has received more attention than compulsory attendance, has been more considered by the people and is undoubtedly making progress. From the statements just made its necessity is perfectly apparent.

Says the superintendent:

To depend on subscription or tuition fees is folly, and every observant man knows it. If the money could be obtained in that way it would be wholly unfair, because
* * * a few individuals in each community would have the supplement to pay,

¹ See Laws, 1900-1901, p. 1416.

² See report, 1909, p. 11. Up to Oct. 1, 1914, the county tax had been voted "by more than 45 Alabama counties."

and they would in few instances represent those who were most able to pay it. If public education is a public duty * * * the only fair and equitable means of raising a supplemental fund * * * is through some method of taxation * * *. Each county is now allowed * * * to levy * * * 10 cents on the hundred dollars of property * * *. Forty-four counties have already taken advantage of this provision * * *. If our people are capable of self-government, they ought to have the privilege of saying on election day whether they are willing to levy a tax of more than 1 mill in any given county in support of the education of their own children, and when the county has levied a reasonable school tax on the property of the whole county for the maintenance of all the schools in the county, then the qualified electors in any school district, whether town, city, or rural, ought to have the additional privilege of saying by their vote whether they will levy on the property of that district a reasonable additional tax as a further supplement to their own school or schools. If, however, our people are not capable of self-government, and if they are so anxious to pay taxes that they would vote upon themselves an unreasonable rate of taxation, then, of course, our present constitution, which denies them the privilege of passing on such a question, ought not to be changed.¹

The number of separate schools increased in 1911-12 over the previous year by 1 per cent. There was substantially a similar increase for 1912-13. The superintendent declares that there are already too many, and while consolidation and transportation have been but little discussed in the State, he recommends the combining of one-teacher schools and reports that in some sections the teaching of high-school subjects has been consolidated so as to leave the grade teachers free for grade work. If this plan continues to work out successfully, it will be the beginning of centralization on a larger scale.

In 1914 there was inaugurated an educational survey of three counties which were regarded as typical of the whole. The counties chosen were Morgan in the north, Macon in the east central black belt, and Covington in the south. The survey was conducted by Messrs. Baker and Sibley, inspectors of rural schools, and was published by the department in its Bulletin No. 43.

It was thought that a survey of the white schools of Macon, where the negroes outnumber the whites at the rate of 6 to 1, would give "a fair idea of conditions generally prevailing in the white schools in the black belt," and a preliminary study of the counties showed that "the negro schools in Morgan and Covington Counties were representative of the general conditions of negro schools throughout the State."

The survey reported on the general questions of population, literacy, farming, economic conditions, and public health. In educational matters it discussed at length general administration, teachers, buildings, grounds, material equipment, values of school property, and vitalizing agencies. It covered the field with much thoroughness, emphasized growing strength in some directions, and pointed

¹ Report 1911-12, pp. 9-10. See similar remarks in the report for 1912-13, pp. 10-14.

out continued weakness in others. It declared that there is a tendency toward building up an efficient county administration as a basis for good schools, but that back of all these efforts lies the necessity for more money. There can at present be no local taxation; private, supplementary contributions are small and uncertain, and salaries are pitifully low. The average for the three counties is \$353—

or an average of \$27.75 per month distributed throughout the year. As the teacher must live in the summer if she is to be ready for work in winter, the pay should be thought of as a year's income. These figures include all public school positions in the counties except the county superintendents. If these had been included the figures would have been \$29.07 per month instead. Of course no chauffeur, deputy sheriff, or railway fireman would work at such wages. Many day laborers get more.

Then, to drive this lesson home, the survey prints the pictures of an automobile and a schoolhouse side by side. It gives the initial cost of the automobile and the average cost of the schoolhouse, the annual maintenance of each, and concludes that—

If one man in a rural community owns a very moderately priced automobile, he has invested in it more than the entire community has invested in its school plant. It is also possible that he spends more upon the upkeep of the automobile than the community spends upon the upkeep of the school, even including the teacher's salary.

The latest annual report of the State superintendent, that for 1913-14, continues agitation along the lines of earlier reports and of the county survey considered above. The superintendent urges in particular that more effort be made to promote community organization. This is to come through the common school, the institution nearest the soil, which should be made the apostle of intelligence, of industry, and of thrift for the regeneration of rural life. With a country life commission to serve as a clearing house of information and ideas and to promote the development of community organization "we may justly hope to weld the people of any district * * * into one coherent whole for its own uplift with the country schoolhouse as the base of operation."

In the matter of constructive legislation the superintendent urges what has been urged before: Local taxation, a State board of education, consolidation, and compulsory attendance.¹

The last word on the educational situation is that of Gov. O'Neal, who, in his message to the legislature in January, 1915, points out the shortcomings of the present system. The most serious of these he considers the apportionment of school funds to the counties on the basis of the whole school population, which the experience of the State has shown to be "manifestly unjust and inequitable." He also shows how this apportionment works out in practice in favor of white teachers in the black belt counties as against those in the

¹ Rept. Dept. Educ., 1913-14, William F. Feagin, superintendent.

white counties. He quotes the statistics of 10 counties in each group and then adds:

It will thus be seen that there was apportioned to these 10 counties mentioned in the black belt for the fiscal year 1913 from the 3-mill tax and the poll tax the sum of \$410,709.55, used for the education of 12,868 children attending the schools in those counties; whereas there was apportioned the same year to 10 white counties the sum of \$233,428.10 for the education of 28,440 children attending the schools in those counties. These figures show that the State paid for the education of each child that attended school in the black belt counties mentioned during the fiscal year 1913 * * * the sum of \$31.917 per capita; whereas it only paid in the white counties mentioned the sum of \$8.207 per capita.

He then comments on the situation as follows:

All students on the subject agree that an equal per capita distribution of funds as now required by our State constitution is not an equitable distribution, is not based on sound principle and can not afford the relief which should be given, and is unsatisfactory and unjust. It does not accomplish the equalization of burdens and advantages, and its abandonment in the interest of justice is the first and most important step on educational reform. * * * The present method of apportionment gives the money of the State to communities for the education of children who do not attend and who do not expect to attend the public schools. * * * Under the present system we put an active and continual premium on nonattendance and encourage the school-teachers of the country by consideration of their own personal interests to discourage attendance. * * * The real unit of cost in our public schools is not the number of children who may or may not attend, but the cost of the teacher.

The governor declares further that the educational interests of the State demand "a more efficient system of county supervision and administration." He urges the repeal of the constitutional provision which forbids more than 4 per cent of the school funds being expended for anything other than teachers; he urges consolidation of schools, health supervision, and the creation of a State board of education with full administrative powers; he urges that the normal schools at Daphne and Moundville be changed to county high schools, and that the appropriations and equipment of the four normal schools remaining be increased; that the standard of teaching be raised; that better schoolhouses be erected and that they be used as social centers; that a course of study be prepared for country schools; that education be vocationalized and that a proper survey of the educational field be made by intelligent educators.¹

¹ Governor's message to the Legislature of Alabama, Jan. 12, 1915, pp. 51-78.

Chapter XI.

MISCELLANEOUS AND SUPPLEMENTARY AGENCIES.

I. NORMAL SCHOOLS AND OTHER NORMAL AGENCIES.

Normal training for teachers dates from the early days of the system. Gen. Perry discussed its importance and necessity in ante bellum days, but there was no formal organization of normal schools till the reconstruction period. So far as known, the first act in Alabama making special provision for the education of teachers was that passed by the State board of education on August 11, 1868, that there be established—

in each of the cities of Mobile, Montgomery, Huntsville, and Selma, and in each of the towns of Talladega, Eufaula, Athens, Tuscumbia, Marion, and Evergreen [and Portersville, omitted from law by mistake], one or more classes of advanced pupils (each of which shall consist of not less than 15 pupils) who may desire to become fitted for the occupation of teachers, to which class instruction shall be given in the most approved methods of teaching, and opportunities of practice afforded in the instruction of pupils of less advanced grades in the common schools. Pupils may be admitted into any of the normal classes on the recommendation of any teacher of a common school * * * only upon a promise in writing that the pupil will teach in the schools of Alabama, when properly qualified so to do, for at least two years.

No limitation was put on the expenses that might be incurred by these classes. There was the simple provision that they be certified by the county superintendent and paid by the State treasurer. In 1869 Dr. Cloud reported that nine normal classes, with 300 pupils, had been taught in six different places during the previous year. We have no direct testimony as to the success of these schools, except that given by Supt. Hodgson in January, 1871, and quoted already. His estimate is decidedly unfavorable, but we must make allowance for the rancor of political bitterness. Mr. Hodgson adds to his criticism: "The subsequent abandonment of the schools, it is fair to presume, has resulted in a loss to this department of \$12,000 for the year 1869 and \$25,000 for the year 1870." These amounts were, to be exact, \$5,371.85 and \$16,582.10.

In his special report of January 28, 1871, Supt. Hodgson says:

At the last session of the board the old schools were abolished, and a bill was passed establishing 13 normal schools, 7 for the training of white teachers and 6 for the training of colored teachers. This was three times as many as the State of New York possessed for 25 years, and more than twice as many as she possesses to-day. Your Excellency has seen proper to withhold your signature from that bill.

But what was evidently only a variation of the original idea appears in the legislation looking toward teacher-training in separate institutions enacted by the State board of education on December 20, 1871, for on that day four distinct acts were passed. The first

provided for four normal schools, one each at Montgomery, Huntsville, Marion, and Sparta, for the training of colored teachers of both sexes. To meet the expenses of these schools, \$4,750 was appropriated. There was the usual requisite that pupils teach two years in the public schools of the State in return for tuition. A second act provided for four normal schools for white teachers, one each at Talladega, Tuscumbia, Scottsboro, and Midway; and for their support \$4,500 was provided. A third act provided for a normal school for white women teachers (location not fixed) and set aside \$5,000 for its use. Another act established a Central Normal School for the education of white teachers in connection with the State university, and provided \$5,000 for its use.

These acts were not all put into operation. In December, 1872, another act is found appropriating \$3,250 for the three colored normal schools at Marion, Huntsville, and Sparta, and it is probable that the legislation then passed in regard to the State normal school at Florence goes back to that of the previous year, although there is nothing to connect it directly with the earlier act to provide for white women teachers, and the supplementary act dealing with the Florence Wesleyan University provides for the education of white male teachers. A fund of \$5,000 was provided for the use of the school. A year later (Dec. 5, 1873) this act was so amended as to admit both men and women to the school. At the same time another act provided for the establishment of a normal school and university for negroes in connection with the Lincoln School, at Marion, and appropriated \$2,000 (increased by act of Dec. 15, 1874, to \$4,000) for normal purposes; a similar school for negroes was located at Huntsville, and \$1,000 provided for its maintenance. No other acts relating to normal schools seem to have been passed during the reconstruction period, and this is the beginning of teacher training in the State.

The total sum paid by the State for normal instruction in the scholastic year 1873 (Oct. 1, 1872 to Sept. 30, 1873); was \$9,750, of which \$5,000 went to the white normal school at the university and \$4,750 was divided among the colored normal schools at Montgomery, Marion, Huntsville, and Sparta. The next year, 1873-74, the total was \$8,000, of which \$5,000 went for white teachers at Florence and \$3,000 to the colored schools at Marion and Huntsville. In 1874-75 they received \$10,000. In 1875-76 the school at Florence had 65 normal pupils.

The laws relating to normal schools, passed by the State board of education, survived the end of reconstruction and were brought over into the code of 1876 and into the act of February 8, 1877. Under the provisions of that act there was established permanently in the buildings of the Florence Wesleyan University at Florence "a school for the education of white male and female teachers," and \$5,000 was

provided for the support of the faculty exclusively. In the same way the new school act again establishes in the building of the Lincoln School in Marion "a State normal school and university for colored teachers and students," for which \$4,000 was appropriated, and for the "normal school for the education of colored teachers" at Huntsville \$1,000 was appropriated. It will be quickly noticed that these laws were merely a reenactment of the legislation of the board of education passed in 1872 and 1873, and since that time the principle covering the training of prospective teachers has been fully recognized in the State.

There are now six normal schools in the State devoted to the education of white teachers and three for negroes teachers. To the funds of all of these institutions the State is the principal contributor, but important gifts have been received from the Peabody and Slater funds and in the case of Tuskegee from many different sources. Indeed, by far the greater part of the funds of that institution have come from the outside. In 1913-14 the total contribution to the cause of normal schools by the State was \$114,500. Of this sum Florence, Jacksonville, Livingston, and Troy received \$20,000 each; Daphne and Moundville, \$5,000 each; \$16,000 went to Montgomery; \$4,000 to Normal; and \$4,500 to Tuskegee. Each is required to report regularly to the State superintendent.

Besides the normal schools established and supported by the State whose statistics are given later, there have been other schools organized from time to time which have made their own proper contribution to the cause. Most important of the outside agencies contributing to this end was the Peabody education fund, through which for a number of years pupils were sent regularly from Alabama to the Peabody Normal College in Nashville, Tenn., for a thorough course of pedagogical training. In 1882 the Peabody fund established 16 Peabody scholarships in the normal school at Florence, for which they paid \$2,000. In 1885-86, besides the \$2,000 contributed for scholarships at Nashville and a similar amount to the school at Florence, the fund appropriated \$300 each to the normal schools at Jacksonville and Huntsville, \$400 to that at Normal and \$300 to the Peabody school district. In 1886-87 and later years both the amount and direction of this donation varied from time to time. At the time that the Peabody board was supplementing public funds by sending prospective teachers to Nashville, the State was encouraging the private organization of teachers' institutes in the counties. Says the State superintendent in his report for 1878-79:

These institutes have been organized in nearly every county in the State. They are generally well attended. In addition to the awakening of new interest among teachers, these institutes promise to be the means of uniforming and improving methods of instruction and discipline in the schools, with a general approach to uniformity in textbooks.

In 1879-80 there were 115 institutes held, but unfortunately they were massed in about half the counties, while the other half had none. In 1880-81 the number was 89; the next year there were 122; and up to this time they had been purely voluntary organizations. The superintendent now recommended that they be taken over by the State and supported out of a fund raised by taking \$100 from the school fund in each county. They were to cover a month in time and be established for each race. As a result of this agitation, a law was passed about 1884-85 which provided that teachers' institutes should be held in each county. The county superintendent was made the responsible officer and every licensed teacher was required to attend. For the year 1885-86 the Peabody fund contributed \$500 to their support and lent them the dignity of its name. Later the financial responsibility was shared by the State, and as many as eight white and five colored institute conductors were in the field in 1891, when the Peabody fund donated \$3,500 to the work. In 1892, 1893, and 1894 they were conducted by congressional districts, because the county unit had been found too small. In 1894-95 the reports show that the Peabody contributions had been transferred to the regular normal schools, and, while the State appropriation for institutes remained on the statute books, it was no longer available, being conditioned on a similar sum from the Peabody trustees. The responsibility for the institutes was thus thrown back, under the law, upon the county superintendents, and with the rise of the State normal schools they became for a time of less and less significance. In 1903-4 it was said that, while three or four institutes were held a year in each county, they were not meeting the purpose for which intended.

In 1911 a new institute law was passed. It provided \$5,000 for institutes to be held one week in each county under the direction of paid expert directors. All teachers except those holding life certificates were required to attend, and their purpose was declared to be—

to provide some professional training and instruction to that large body of the teaching force who have not had the privilege of receiving professional training in normal schools or the teacher-training department of other higher institutions.

For the use of negro institutes, located at given centers, \$1,000 was provided.

Other organizations, private in origin and character, but contributing to the upbuilding of schools, are the Alabama teachers' associations. The white teachers had been first organized in 1856 as the Alabama Educational Association. They had annual meetings and supported a school journal, but like most other things educational went down in the mad storm of war. There was a temporary revival in 1871, but the time was not ripe. In July, 1882, in Birmingham, the organization was revived under the name, Alabama Teachers' Association. Curiously enough, the colored teachers were organized that year for the first time as the Alabama State Teachers'

Association. As a result of this similarity in name, the white teachers soon went back to their original name and are now known as the Alabama Educational Association. Through this association the teachers are now thoroughly organized, they have annual meetings, their proceedings are published in large volumes, and much discussion takes place covering many phases of modern education. The association has served a useful purpose in bringing the teachers from different sections of the State together, has made better acquainted those who have to deal with different phases of the same problems, and is fostering a much closer correlation of educational forces than has hitherto been known in the history of the State. It is by no means an unimportant adjunct to the work of the normal schools.

Still another agency in the training of teachers, one which supplements the normal school, the teachers' institute, and the teachers' association, because it can be brought into use at any time and place, is the teachers' reading circle. In his report for 1882-83 the State superintendent reports the organization of the Alabama Teachers' Reading Circle, whose object was "to induce all teachers to pursue a four years' course of reading, specially selected so as to be of the greatest benefit to them." But this movement did not last long, and in 1893 agitation was renewed. At a meeting of the Alabama Educational Association held in Montgomery that year, such an organization was proposed. The next year it was stated that there was already a Teachers' Lyceum, and it was resolved that the "association indorse this lyceum movement, adopt it as our official reading circle, and urge its organization in every part of our State." But the movement seemed to have been premature, and little came of it. In 1908 its revival was proposed by C. W. Daugette; organization was effected in 1909. The books selected for the first year's reading were: Phillips's Old Tales and Modern Ideals; Kern's Among Country Schools; and Dutton's School Management. It was reported at the end of the first year that 40 counties had been organized and 2,000 copies of the above books bought. A Young Peoples' Circle was added in 1910. A small library of 28 volumes, costing \$10, was adopted for the elementary grades, while one of 13 volumes, costing \$5, was selected for the high schools. After the passage of the rural library law in 1911, a working arrangement with the new organization was effected, and the two have since developed in harmony, each strengthening the other. In 1912-13 there were 2,967 white teachers and 427 colored teachers who secured and read the three books prescribed for this course of professional reading. The increase of teachers taking this work among the whites was 10 per cent and among the colored 21 per cent. "This remarkable showing is a development of scarcely more than three years. It developed from a beginning so small three years ago as to be almost a negligible number," says the State superintendent.

In 1913-14 the white teachers who were following the reading course numbered 3,937; the negro teachers numbered 345.

Still another aid in the training of teachers may be mentioned here. The educational press had its origin in Alabama in the Southern Educational Journal and Family Magazine, edited and published by F. H. Brooks, in Mobile, in 1843 and 1844. It was short-lived, apparently, only six monthly numbers appearing, the last of them being for March, 1844. It was a magazine of general educational information and had little direct application to Alabama beyond advertising a series of Alabama readers and other books used in the primary schools of the day.

After the suspension of Brooks's Southern Educational Journal there was a blank until Gen. Perry established his Alabama Educational Journal, which was published at Montgomery from January 1, 1857, to September, 1859, making two volumes, one in quarto and one in octavo form. It was semipopular in character, and its value has been considered already in the chapter on the work of Gen. Perry and Capt. Duval. Its place was supplied by the Southern Teacher, "a journal of school and home education," which was published at Montgomery by W. S. Barton, July, 1859, to April, 1861, or later. It was the desire of the editor to become a sort of connectional educational organ for the South as a whole, but his ambition was stilled by war.

In April, 1871, Col. Joseph Hodgson, then State superintendent, established the Alabama Journal of Education. It was merged the same year into the Alabama Educational Magazine and this into a paper called the Advance.

Then came the Alabama Progress, established in Montgomery by George P. Keyes, and first issued March 18, 1882. It became the "official journal of education" for the department and was "suspended for a few weeks" August 25, 1883. It had been very general in character and had many features of a newspaper. Then came in May, 1885, the Alabama Teachers' Journal, published first at Huntsville, later at Montgomery. It was edited by J. A. B. Lovett and was more strictly professional in character. It completed its fourth volume with September, 1889. No other volumes were published, apparently. It is evident that Alabama was not yet productive soil for educational publications. But the times were improving. In April, 1889, J. H. Phillips and others began the Educational Exchange, in Birmingham. It was published from that city through 1891, then removed to Montgomery and continued under the direction of J. M. Dewberry. It was taken back to Birmingham in 1895 and has since then been published there. It is now issued by the Educational Exchange Co., and having completed its twenty-eighth annual volume may be counted as a fixture.

The most important data connected with the normal schools now in existence is given in the following table by five-year periods, 1872-73 to 1912-13. It shows that their influence and usefulness is increasing with the development of the State.

Statistics of Alabama normal schools, 1872-73 to 1912-13.

Schools.	Teachers.	Students.	Normal students.	Graduates.	Volumes in library.	Value of equipment.	Income, all sources.	Total expenditures.
1872-73:								
Florence ¹	4	80	10					
Huntsville ²		57					\$1,000	
Marion ³							1,250	
1877-78:								
Florence	4	147	47				5,000	\$5,000
Huntsville	2						1,169	1,103
Marion	4	129					2,850	2,850
1882-83:								
Florence		184	92					
Huntsville	4	268					2,939	2,784
Marion		211	133				8,027	7,921
Tuskegee ⁴	4	126					2,727	2,442
1887-88:								
Florence		218	178				10,661	10,325
Jacksonville ⁵	8	176			1,000		5,250	5,110
Livingston ⁶	5	126	37				2,500	2,500
Troy ⁷	4	439	80			\$17,000	4,200	4,200
Huntsville		302	135	6				
Tuskegee	24	525	425		1,800	76,060	22,328	19,328
Montgomery ⁸	3	358					3,000	3,000
1892-93:								
Florence ⁹		300					9,000	8,822
Jacksonville		135	42				4,154	4,136
Livingston	14	131	44				3,638	2,319
Troy	13	382					7,600	
Huntsville	22	306		18		35,226	26,750	26,603
Tuskegee		919	794			200,000	64,000	64,000
Montgomery		859	272				10,000	
1897-98:								
Florence	10	314	225	41		56,000	16,122	14,587
Jacksonville	7	197	52	11		10,250	4,086	4,020
Livingston	11	183	76	24		14,000	3,491	2,388
Troy	23	578		23		22,500	10,595	9,910
Normal ¹⁰	34	458	163	77		45,000	33,500	11,257
Tuskegee	88	1,047		30		300,000	107,488	89,358
Montgomery	26	808	477	8		35,000	14,325	14,325
1902-3:								
Florence	9	354		52		50,000	12,926	13,252
Jacksonville	8	388		12		53,250	9,131	8,612
Livingston	23	374		8		16,600	9,134	8,148
Troy	12	340		10		38,400	11,615	12,044
Normal	7	468		148		76,037	15,785	15,104
Tuskegee		1,497		124		572,599	169,609	169,609
Montgomery		1,060		13		47,600	15,500	15,000
1907-8:								
Florence	13	352		30		62,000	20,921	20,921
Jacksonville	19	405		22		47,500	19,510	19,077
Livingston	16	275		14		52,000	19,300	20,434
Troy	13	398		24		43,750	21,655	18,851
Daphne ¹¹	3	90		3		28,050		2,500
Normal		267		77		97,445	18,749	18,749
Tuskegee		1,574		84		956,580	260,013	252,708
Montgomery	27	1,010		22		50,500	16,457	16,457
1912-13:								
Florence	20	575	349	39	6,050	165,000	90,305	88,965
Jacksonville	18	561	320	14	2,500	56,000	29,028	29,007
Livingston	18	402	402	43	2,250	125,000	30,179	26,488
Troy	19	329	224	26	4,000	57,000	29,245	29,245
Daphne	9	200	95	9	1,000	35,000	6,202	6,172
Moundville ¹²	7	70	29	3	100	6,500	5,478	5,161
Normal	28	343	156	37	9,000	155,000	38,681	38,632
Tuskegee	190	2,600	763	184	20,056	1,371,527	388,033	388,033
Montgomery	37	1,185	388	30	400	70,000	21,183	21,170

¹ For white men, organized in 1872; later, coeducational.

² For negroes, organized in 1871; coeducational.

³ For negroes, organized July 4, 1881, with 30 pupils.

⁴ For white men, organized 1883; later, coeducational.

⁵ For white women, organized 1883; all other normal schools are now coeducational.

⁶ For white men, organized 1887; later, coeducational.

⁷ Transferred by legislature about 1886 from Marion and reestablished as Alabama Colored People's University, at Montgomery. Act declared unconstitutional; reestablished by act of Feb. 23, 1889, as the Montgomery State Normal School for Colored Students.

⁸ Report for 1893-94; that for 1892-93 not given.

⁹ For negroes, formerly called Huntsville.

¹⁰ Organized in 1907; coeducational.

¹¹ Organized 1907-8.

¹² See act of Apr. 14, 1911. Sess. Laws, 1911, p. 417.

II. CITY SCHOOLS.

The organization and development of city schools in Alabama harks back to Mobile. As we have already seen, it was in that city that the public-school system had its birth and earliest development. There experiments began in 1826 and had a slow and unsatisfactory evolution until 1852, when the school law was revised, and there was a real renaissance of public-school interest. The schools were then reorganized, developed more civic interest, took on new life, and were approaching the modern ideal of public schools supported by all and free to all. This explains why the Mobile organization was the only city system before the war and hence far ahead of the rest of the State. It obtained such a hold on the popular favor that it stood the stress of civil war, did not suspend operations till the spring of 1865, and was soon after reorganized.

Then came reconstruction, when it lost its distinctive organization and was absorbed into the State system. The constitution of 1875 restored its ancient privileges and enacted the provision that in matters of education the new constitution should apply to it—

only so far as to authorize and require the authorities designated by law to draw the portion of the funds to which said county will be entitled for school purposes, and to make reports to the superintendent of education as may be prescribed by law.

The article on taxation prescribed further that Mobile might until 1879 levy 1 per cent on valuation and after that three-quarters of 1 per cent "to pay the expense of the city government." This was one-quarter of 1 per cent more than other cities might levy; so that there were more funds available for the school. This provision for the three-quarters of 1 per cent was brought over into the new constitution of 1901. That instrument provided also that three-quarters of 1 per cent might be levied (the general limit of municipal taxation being one-half of 1 per cent) by Decatur, New Decatur, and Cullman, to be used for public schools and public school buildings. No other cities were allowed to levy such special taxes, and as we have already seen, the help that has come to the cities in the matter of public-school tax has not come through granting the taxing power direct to the school.

There were a few acts passed in reconstruction days which looked to a practical extension of the Mobile idea of differentiating city schools from the other parts of the public-school system of the State. In 1870 acts were passed by the board of education, then the legislative as well as the executive power in school matters, which gave separate official organization to the school of Montgomery and Selma. In 1872 Opelika, Eufaula, and Birmingham were added to the list, and in 1874 Huntsville and Dadeville. These acts defined the boundaries of the districts, and by separating them from the

surrounding territory gave them opportunity for a greater individuality and independent development. From 1871-72 accounts of these schools occur with more or less regularity and fullness in the reports of the State superintendent. In the reports for 1871-72 and 1872-73 Montgomery and Selma appeared; in 1873-74 Birmingham and Eufaula were added to the list, and in 1874-75 Huntsville appeared, making five cities that received special treatment. It will be noticed that Mobile is not included in these separate reports. In fact the semi-independence of Mobile, while making greatly for the advantage of her schools, has seriously militated against the completeness of the State reports.

With the reorganization that followed the adoption of the new constitution in 1875, these special city systems were retained. Oxmoor was soon added to the list, the whole system was brought over into the new code of 1876, and Marion was added by the act of February 5, 1877. It will be noted that none of the special acts passed during the reconstruction régime contained the provision for special taxation. But this provision appears in the act creating the Oxmoor school district, the first of these acts passed under the Democratic régime. It is significant that this act, apparently the first relating to education, passed under the new constitution, should also be the first to voice the necessity for local taxation. This is now nearly 40 years since. Educational leaders, idealists, and men of action thought it necessary then. How much more is it needed now!

Under these acts the separate districts were allowed by the law creating them to have their proper share of the sixteenth-section and State funds. They were given their own separate organization and so made free in the matter of administration from the limitation of the old township system. They thus secured needed flexibility and freedom of movement, and so useful was this separate organization that the creation of separate school districts grew rapidly. In the nineties more than 50 such districts were created at a single session, and in 1903 the old township system for school purposes was entirely abolished.

The one thing which differentiated the separate districts, developed first in the towns and later extended to the country, was the greater flexibility and freedom of action. There was another reason which made for their organization in the earlier years. This was the hope of using them as a basis for local taxation. Beginning with Oxmoor in 1875 and extending to the Birmingham act of February 18, 1895, the cities, towns, and separate districts through their special organization have tried hard to secure the right of local taxation. Numerous special school charters were passed with this provision inserted, but the unincorporated places went down in the Cullman case (*Schultes v. Eberly*, 82 Alabama) and the cities and towns in the

Birmingham case (*State of Alabama v. Southern Railway*, 115 Alabama, 250). Nor was the right of local taxation for education recognized by the constitution of 1901. They have ceased to try to obtain results along those lines, having been entirely blocked by the courts. In 1903 there was passed a law which provided that municipalities might purchase school property and erect school buildings. This act carried with it the power to levy a tax of 25 cents on the hundred, provided their whole tax did not exceed the constitutional limit of 50 cents on the hundred. It does not appear that any test case involving the validity of this act has ever come before the courts.¹ It might also be pertinently asked if the same funds could not have been raised under the general municipal power to tax and thus have avoided the risk of an unfavorable decision. It is probable, however, that the main purpose of this law was to give the cities power to make appropriations for this particular purpose after the money was raised.

In general the course of the evolution of the various city systems has been the same. In most cases, certainly as far as the older towns are concerned, the public schools have grown up out of various private academies, in whose hands the subject of education was left in earlier days. As the municipality grew in strength and social consciousness, the functions of education were gradually taken over. In some instances the board of trustees of the private academy was made by law the board for the new city system. In some cases it was put under the care of a special board; in others it became the care of the mayor and aldermen, and to these boards were given the power usually exercised by boards of education.

Funds were secured in various ways. The acts creating special school districts provided that they should receive their pro rata of the sixteenth section of State school funds; there were some private contributions; there were others from the town or county, or both, and when all of these failed to produce enough to meet necessary expenses, tuition fees were charged. For this reason the city schools in particular, like the State public schools in general, have not been always free, but have attained this goal only by slow stages as the towns are themselves able to increase their appropriations.

It will be noted also that these city appropriations have come from the general city budget, not from taxes levied for schools, for this was declared unconstitutional under the organic instrument adopted in 1875, nor had the current set itself sufficiently strong toward education to place such a provision in the constitution of 1901. These schools are now reaching a crisis. They must have more money.

¹ Hon. Robert C. Brickell, attorney general of Alabama writes: "I find that the act has been carried into the Code of 1907, and is now section 1458 of said code. This section is substantially the same as the act of October 6, 1903, with the exception that the tax of one-fourth of 1 per cent may be levied, provided such municipality shall not exceed its constitutional limit of taxation."

Notwithstanding the fact that the cities have not been able to give their schools the funds needed for their proper development because of these constitutional limitations, it does not take a very detailed examination of the school reports to see that they are steadily forging ahead of the country districts. There are various reasons for this, most of which are inherent in the fundamental distinction between city and country. The city has a larger and more closely knit population. If not more homogeneous, it is more aggressively aware of its educational needs, and larger schools make possible a better school organization. Then, municipal progress is greater, because cities are generally more willing to tax themselves up to the limit and city property is both more compact and greater in amount. The constitutional limit of taxation was the same in either case (50 cents on the hundred) until the constitution of 1901 permitted the counties to levy an extra 10 cents, but notwithstanding this advantage the cities have more than held their own as reports on income and the length of the school term will indicate.

It does not seem desirable to enter into any extensive survey of the fortune of the schools of particular towns, yet a paragraph or two in this direction will not be out of place.

As already seen, the schools of Montgomery and Selma were provided for in 1870, and their reports date from 1871-72. Acts for Opelika, Eufaula, and Birmingham were passed in 1872, and their reports appear for 1873-74. Huntsville and Dadeville began in 1874, and since then the organization and development of city (or separate district) systems has been more or less regular, and has been carried on in more recent years at an increasing rate.

Under the present law the city schools are divided into four classes: Class A, those of 25,000 inhabitants or over, includes Birmingham, Mobile, and Montgomery; class B, those with between 5,000 and 25,000 inhabitants, includes ten cities; class C, those of between 1,000 and 5,000 inhabitants, has 66 cities and towns; class D, includes all incorporated places of less than 1,000 inhabitants, and numbers 164 towns and villages. So useful has this classification proved to be that school districts with an enrollment of less than 100 pupils are found on the list. Of the cities in class A, Mobile has already been discussed at length in this bulletin. Montgomery had her system reorganized in 1882, and at that time did not own a school building or have any equipment worthy of the name. Its enrollment was about 700 pupils; three years later these had increased to 1,730 pupils taught in five schools. In 1912-13 her enrollment was 4,934, and the total expenditures were \$92,124.

But like a chapter from the Arabian Nights is the story of the rise of Birmingham, the new iron and steel center of the South. The town itself does not antedate the Civil War. In 1873 it was visited

by an epidemic of cholera. Values were destroyed and the town almost depopulated. There was pinching poverty, sorrow, and despair. Out of these misfortunes came the efforts to organize a public school system in October, 1873, under the law of 1872. Col. J. T. Terry took the lead in raising the necessary money for a school building, and the land for the same was donated by Col. James R. Powell, for the Elyton Land Co. The schools were finally opened in March, 1874, and in the next nine years had eight superintendents. In 1883 they reorganized the system and appointed a new superintendent. When he, the ninth in lineal succession, took charge in 1883-84, there were 1,620 pupils of school age, with 14 schools and 16 teachers; the total enrollment was 967, and the average attendance was 510. The total expense for teachers that year was \$1,290. For the year 1912-13 the corresponding figures were: School population, 43,659; schools, 62; teachers, 609; enrollment, 25,320; average attendance, 17,883; amount paid to teachers, \$369,749; while the total expenditures were \$511,766. This immense growth for the last 30 years has been under the administrative direction of a single superintendent, John H. Phillips, who has seen the school system develop from frail and weak beginnings into its present strength. This development has not always been along lines of pleasantness. The opposition was sometimes strong and frequently aggressive, but out of it all the schools have at last emerged strong and vigorous. Based on safe and sure foundations, they are now ready for a wider field of usefulness, which will come only when the city has authority to give her schools the funds which she is anxious to levy for their use, but which she is as yet forbidden to levy by a too conservative constitution.

It has not seemed proper to trace further the educational history of particular cities, but to give instead the statistics of the educational growth of the older cities and towns by five-year periods beginning with 1872-73. From such a table we can see the gradual growth of educational facilities and so compare them with corresponding figures for the State as a whole. It is evident, first of all, that these statistics are very incomplete. But, assuming that they furnish a fairly accurate picture, is there any conclusion which may be drawn?

If we examine the statistics of school population, enrollment, and average attendance, we are struck by the small increase of attendance over 40 years ago. From this standpoint, measured in terms of average attendance only, it would appear that some of these schools are not now more efficient than in earlier days. While they have been able to do well by the children in actual attendance, their per cent of social efficiency is lowered directly as they have failed to secure the enrollment and attendance of all the children of

school age. In this respect the efficiency of the city school is but little better than that of the State as a whole, for we find that while the average attendance in Birmingham (40.8 per cent) and Montgomery (37.5 per cent) was larger in 1912-13 than the State average in 1911-12 (34.9 per cent), the attendance of Florence, Huntsville, Selma, and Tuscaloosa was less, and with this low attendance, reaching in no other city as much as the Birmingham average of 40.8 per cent, what becomes of the excellent school terms of these cities extending from 174 to 180 days? It means that the average length of the most efficient of them is really only 40.8 per cent of 176 days, or the equivalent of 71.81 days. It would, perhaps, be impossible to present a more eloquent argument for compulsory attendance.

In the matter of accommodations, most of the cities are woefully lacking, some of them having less than 50 per cent of the seating capacity that a compulsory-attendance law would require. This means that little additional progress in the city systems can be expected until a constitutional amendment permits a special school tax to provide funds for the greater accommodations and increased equipment needed to provide for the new pupils that will be brought into the schools under any compulsory-attendance law.

City school statistics, 1872-73 to 1912-13.

Cities.	School population.	School enrollment.	School attendance.	Total income.	Total expenditures.	Schools.	Term, in days.	White teachers.	Negro teachers.	Average monthly pay of teachers.	Value of school property.
1872-73:											
Birmingham.....	1,497	266	247	\$414	\$1,280	6	160	4	1	\$38.75	.....
Enfauila.....	1,784	252	148	653	850	7	92	4	3	35.41	.....
Huntsville ¹	1,653	455	403	2,265	3,880	9	170	5	5	50.00	.....
Montgomery.....	3,327	1,120	880	3,743	9,336	18	164	9	9	62.78	.....
Selma.....	1,475	830	410	1,669	11,450	14	204	10	7	77.04	.....
1877-78:											
Birmingham.....	386	268	182	303	746	6	157	4	2	177.29	.....
Enfauila.....	1,015	204	160	956	775	7	86	4	3	106.25	.....
Huntsville.....	1,263	378	286	1,151	1,260	8	130	5	3	161.00	.....
Montgomery.....	3,004	.....	.....	2,870	.....	.....	.....	.....	.....	.....	.....
Selma.....	1,736	922	596	1,584	1,406	14	240	8	6	77.60	.....
1882-83:											
Birmingham.....	1,057	500	454	629	2,095	12	200	8	4	53.50	.....
Enfauila.....	1,104	350	240	657	800	4	140	2	2	30.00	.....
Huntsville.....	1,615	344	282	961	1,175	7	160	4	3	45.00	.....
Mobile (County).....	23,965	6,924	5,590	14,133	49,522	124	146	93	40	43.00	.....
Montgomery.....	3,793	1,626	1,385	2,257	3,520	24	180	14	10	62.00	.....
Selma.....	2,021	746	597	1,203	1,667	19	200	12	7	85.41	.....
1887-88:											
Birmingham.....	3,261	2,156	1,425	79,735	62,886	45	180	.....	.....	53.90	.....
Decatur.....	498	411	175	4,373	4,033	2	200	.....	.....	60.25	.....
Enfauila.....	1,219	452	200	1,199	1,199	2	192	.....	.....	37.50	.....
Huntsville.....	1,888	520	380	4,016	4,117	2	180	.....	.....	43.00	.....
Mobile (County).....	27,264	.....	.....	18,808	48,190	.....	.....	37	38	40.08	.....
Montgomery.....	8,670	1,543	.....	21,862	21,385	5	170	.....	.....	.....	.....
Selma.....	2,476	891	631	10,811	9,423	2	170	.....	.....	72.72	.....
Tuscaloosa.....	1,936	679	441	25,603	25,587	2	160	.....	.....	42.50	.....

¹ Figures for 1873-74.

² Figures for 1874-75.

³ White teachers, presumably for the year.

⁴ White teachers, per month.

City school statistics, 1872-73 to 1912-13—Continued.

Cities.	School population.	School enrollment.	School attendance.	Total income.	Total expenditures.	Schools.	Term, in days.	White teachers.	Negro teachers.	Average monthly pay of teachers.	Value of school property.
1893-94:¹											
Birmingham.....	10,124	4,194	2,936	\$64,395	\$50,548	85	177	.....	.....	.....	.....
Decatur.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eufaula.....	316	250	198	5,521	5,521	2	180	.....	.....	\$48.00	.....
Huntsville.....	1,884	723	560	3,586	5,120	2	160	.....	.....	\$41.43	.....
Mobile (County).....	.....	6,645	5,287	82,556	81,651	105	161	130	61	\$45.91	.....
Montgomery.....	5,198	.....	.....	24,314	24,314	.....	.....	.....	.....	.....	.....
Selma.....	2,805	1,092	.....	21,017	18,801	3	160	.....	.....	\$78.30	.....
Tuscaloosa.....	1,936	348	225	3,800	3,789	2	158	.....	.....	.....	.....
1897-98:											
Birmingham.....	9,275	.....	.....	\$6,771	.....	.....	.....	.....	.....	.....	.....
Decatur.....	829	.....	.....	905	.....	.....	.....	.....	.....	.....	.....
Eufaula.....	1,550	.....	.....	\$1,132	.....	.....	.....	.....	.....	.....	.....
Huntsville.....	2,290	.....	.....	\$1,672	.....	.....	.....	.....	.....	.....	.....
Mobile (County).....	24,043	6,450	.....	\$17,451	.....	101	158	135	52	\$48.39	.....
Montgomery.....	5,207	.....	.....	\$3,801	.....	.....	.....	.....	.....	.....	.....
Selma.....	3,393	.....	.....	\$2,477	.....	.....	.....	.....	.....	.....	.....
Tuscaloosa.....	2,098	.....	.....	1,532	.....	.....	.....	.....	.....	.....	.....
1902-3:											
Anniston.....	5,335	859	550	\$8,060	9,590	3	.....	.....	.....	\$50.00	.....
Birmingham.....	11,009	.....	.....	\$19,051	.....	.....	.....	.....	.....	.....	.....
Decatur.....	921	.....	.....	\$1,497	.....	.....	.....	.....	.....	.....	.....
Eufaula.....	1,793	653	470	\$2,596	7,186	3	.....	.....	.....	\$45.00	.....
Florence.....	2,231	.....	972	\$3,086	6,219	3	.....	.....	.....	\$40.00	.....
Huntsville.....	2,561	801	611	\$3,855	.....	2	.....	.....	.....	\$35.00	.....
Mobile (County).....	20,276	7,848	6,338	\$25,720	.....	111	158	159	59	\$50.00	.....
Montgomery.....	5,312	2,861	2,462	\$9,553	.....	.....	.....	.....	.....	\$62.00	.....
Selma.....	4,318	.....	.....	\$5,965	38,866	10	.....	.....	.....	.....	.....
Tuscaloosa.....	2,320	715	468	\$3,654	.....	.....	.....	.....	.....	.....	.....
1906-7:²											
Anniston.....	4,680	1,527	1,060	18,947	18,942	6	.....	.....	.....	\$62.24	.....
Birmingham.....	13,858	7,322	5,129	105,573	105,366	13	.....	.....	.....	\$75.64	.....
Decatur.....	1,416	645	396	6,917	6,516	2	.....	.....	.....	\$56.11	.....
Eufaula.....	1,887	624	459	7,291	7,023	3	.....	.....	.....	\$63.08	.....
Florence.....	2,054	902	628	6,960	6,980	4	.....	.....	.....	\$74.42	.....
Huntsville.....	2,440	1,154	809	8,127	8,127	3	.....	.....	.....	\$59.00	.....
Mobile (County) ³	21,821	10,676	.....	172,885	161,084	122	.....	192	56	\$109.00	.....
Montgomery.....	9,820	4,650	3,380	61,329	61,294	14	.....	.....	.....	.....	.....
Selma.....	4,336	1,265	1,037	29,073	15,263	3	.....	.....	.....	.....	.....
Tuscaloosa.....	2,943	1,114	726	13,974	13,421	3	.....	.....	.....	.....	.....
1912-13:⁴											
Anniston.....	.....	1,615	1,189	24,383	24,191	7	177	29	7	\$125.40	\$102,000
Birmingham.....	43,659	25,320	17,833	511,766	511,766	62	176	486	123	\$153.60	1,696,037
Decatur.....	.....	695	502	8,512	8,164	2	180	10	5	\$166.66	32,800
Eufaula.....	.....	723	530	8,300	8,300	3	180	10	4	\$150.00	18,500
Florence.....	2,141	922	627	11,379	11,049	4	180	19	3	\$146.66	27,500
Huntsville.....	2,200	1,197	728	17,021	16,997	4	180	17	11	\$140.66	50,000
Mobile (City).....	.....	4,639	4,068	107,969	107,969	14	174	119	33	\$157.00	424,600
Montgomery.....	9,504	4,934	3,561	93,652	92,124	14	180	73	35	\$196.22	533,275
Selma.....	3,404	1,553	1,146	37,173	31,559	5	180	24	9	\$181.59	109,000
Tuscaloosa.....	3,498	1,497	878	34,727	33,916	5	176	28	10	\$159.00	101,200

¹ Figures for 1892-93 not available.² White teachers, per month.³ From State funds only.⁴ For white schools.⁵ Figures for 1907-8 not available.⁶ For 1907-8.⁷ White male teachers only.⁸ Includes high schools.

III. NEGRO SCHOOLS.

The organization of the public schools for negroes is closely connected with the history of the corresponding white schools.

Before the Civil War there were in the South no schools, as such, for negroes, but it would be a mistake to assume that negroes received no education. They did receive an educational training which was excellent in character, extensive in amount, and suited to their condition of life. They were sometimes taught to read, write, and cipher;

but they were particularly taught to shoe a horse, to weave cloth, and make clothes for themselves, to build houses, and to work along similar lines. Their training, beyond the rudiments—and these were most often absent—was strictly industrial and of the very sort to make them most self-sustaining and independent when the end of the war brought freedom and the necessity of self-dependence. It seems perfectly safe to say that of all the property accumulated by this race since the war, the greater part is traceable directly to the industrial training which they had received in the days of slavery. It is also worthy of note that the best educational thought of to-day, not among white educators only, but among leading negro educators as well, is that this industrial education is what the negro needs for his best development. The presidents of the negro normal schools in Alabama—W. B. Paterson, William H. Council, and Booker T. Washington—have all held conspicuously to this view.

With the coming of the Federal armies into Alabama came the Federal school-teacher. He—more generally and correctly speaking, she—was filled with enthusiasm for the slave, but ignorance of the situation made many of these teachers think that the prevailing forms of education were all that was needed to accomplish the impossible and set the former slave on the seat of equality with the former master. For this reason institutions of the orthodox type, where Latin, Greek, and higher mathematics were offered to the ex-slaves in lieu of the homely training needed to make them and their children masters of the economic situation in which they found themselves, sprang up over the State under the direction of missionary societies and the Freedmen's Bureau. It would be unjust to say that these schools produced no good results, but at best the amount of good work actually accomplished is small when compared with the results that might have been obtained had they been started in the right direction.

In the meantime the natural leaders of Alabama were not blind to the situation created by the collapse of the Confederacy and the freeing of the slaves. Already there has been given a long list of leaders—natives and ex-Confederates—who, immediately after the war, advocated the education of the negro. The board of education of the city of Mobile had actually begun its work of educating the negro before reconstruction was old enough to act. In June, 1868, it had four public schools for negro children, with an attendance of 919, and a fifth school was organized during the autumn of that year.

The negro schools, first organized as private philanthropy and financed by the Freedmen's Bureau or through contributions from the North, passed into the State public school system soon after its reorganization in the summer of 1868. Under a working arrangement with those interested, the schoolhouses then in use and the

teachers then employed became a part of the new system. The whole was administered as an integral part of the public schools and experienced about the same fortunes as those of the whites. This means that, while there was great clamor raised from time to time on their behalf, they were not entirely exempt from the difficulties which confronted all the schools of reconstruction times. Since 1875 they have been on a safer and surer basis and have had a development not essentially unlike the schools for the whites. Funds are now distributed to the counties on the basis of school population; in so far as the State distribution to the counties is concerned, there is no distinction between races.

The statistics for negro schools, so far as they can be differentiated in the public school reports, are presented with the other tables at the end of this bulletin.

As we have seen, suitable and proper efforts were made during reconstruction to establish normal schools for negro teachers, and later came a series of teachers' institutes for the same purpose. Perhaps more attention was given to this phase of negro education than to any other, but there was still the tendency to evolve along the old orthodox lines. According to the State superintendent in 1876, for instance, the Normal School at Marion, successor to the Lincoln Memorial University there, was "so liberally endowed by the State and furnished with a competent faculty as to afford to the colored race opportunities for acquirement of collegiate and university education." This statement is substantiated by the subjects taught there in 1879-80: Orthography, reading, writing, arithmetic, geography, grammar, history, botany, drawing, composition, vocal music, physiology, zoology, rhetoric, algebra, geometry, physics, Latin, Greek, chemistry, and French. The next year they had added: Penmanship, physical geography, trigonometry, geology, logic, English literature, school economy, and philosophy of education.

Within the next four years, however, this school, under the direction of William B. Paterson, began to develop the industrial feature of its work, and progress was made in that direction, but it was thought desirable to keep this institution more closely to normal and higher educational lines, and on February 25, 1887, an act was passed¹ which provided for the removal of the Marion Normal to Montgomery and its reestablishment as the State Normal School and University for the Colored Race. It was conducted under these new auspices during the year 1887-88, and reached an enrollment of 358. With the second year it was organized into normal, preparatory, and industrial departments, and there was an enrollment of 500, but "no students presented themselves of sufficient attainments to profit by a college or university course of study."

¹ Laws of 1886-87, p. 198.

The law under which the school had been removed and reorganized was challenged, however, and came before the courts in the case of *Elsberry v. Seay* (83 Alabama Reports, 614). It was pronounced unconstitutional because it failed to make the school subject to the official supervision of the State superintendent. The court declared, further, that since the new institution was not in the commonly accepted sense a part of the public school system, the money "set apart and appropriated from the school fund for the education of the colored people" for its support was "an unauthorized perversion of the funds from their own proper use," and therefore again unconstitutional.

As a result of this decision the school received for the year 1887-88, in addition to \$500 from the Peabody fund, only \$2,500 of the \$7,500 provided for its support by the State under the law of 1887, and during the year 1888-89 apparently received nothing at all from that source, although still conducted at Montgomery. A new law, passed February 23, 1889, again reorganized "the State Normal School and University for Colored Students, now at Marion, Perry County," as the State Normal School for Colored Students. It was again located at Montgomery, and since then has had a more or less uniform development along normal and industrial lines. It is now receiving \$16,000 per year from the State, and is more distinctly a State institution than either of the others, as practically all its funds are of local origin.

The other institution for negroes, which has its roots in the period of reconstruction and has evolved into a useful institution of the present day, is the normal school located at Huntsville, which is now known as the Huntsville State Colored Normal and Industrial School, with its post office at Normal, Ala. It began industrial work about 1884 and remained legally a simple normal school until the act of February 13, 1891, became a law. In accord with this act, the Morrill fund was divided between the white and colored citizens in the proportion of 56.6 per cent to the white Alabama Polytechnic Institute at Auburn and 43.4 per cent to the colored institution at Huntsville. William H. Council was then at the head of the latter institution and remained as such until his death. Under Mr. Council's direction the school did for the negroes of Alabama not only normal work, but also work along agricultural, mechanical, and industrial lines, and between the work at Normal and that at Tuskegee, Alabama has now a position of unrivaled leadership in negro education in the South. The detailed statistics of growth of these institutions by five-year periods will be found in the section on normal schools.

It is worthy of note also that the original act under which Tuskegee was established had only a normal school of the orthodox type in mind. The act of February 10, 1881, provided for "a normal school

for the education of colored teachers," for the use of which \$2,000 was set aside out of the funds coming to the colored children.

This school was opened July 4, 1881, with 30 pupils. The courses as then offered were strictly preparatory and normal, but the trustees had brought to the school as principal a young teacher from Hampton Institute who was destined to help change the educational direction of the race and so bring it back toward the standard of antebellum training from which it was drifting. This young teacher was Booker T. Washington. "From the first we have striven to make this a normal and industrial school," says the superintendent in his third report, and development went on regularly on these lines till 1893 (February 21), when a supplementary act was passed which broadened the scope of the institute to "the instruction of colored teachers and youth in the various common academic and collegiate branches, the best methods of teaching the same, the best method of theoretical and practical industry in their application to agriculture and the mechanical arts." This act made the Tuskegee trustees an independent, self-perpetuating body, with large administrative powers. The State contribution to their work was raised to \$3,000, and is now \$4,500.

Since that time, under the administration of Mr. Washington, the school has had a remarkable development. Its funds have been greatly increased by contributions from the Peabody and Slater funds, from the General Education Board, by money gifts from private individuals, and by public lands from the United States. At the present time the value of its plant equipment and its annual income are greater than those of any other institution in the State.

IV. RURAL SCHOOLHOUSES, RURAL SUPERVISION AND SCHOOL-IMPROVEMENT ASSOCIATIONS.

The year 1907 will be marked in the history of Alabama public school education as one of the great years, for at that time the State took two steps forward by passing (Mar. 2, 1907) a State law for giving aid to rural schoolhouses, and at the special legislative session in the summer (Aug. 7) another law which laid the foundations for county high schools.

The schoolhouse law provided that \$67,000 should be set apart annually out of the fund arising from the sale of fertilizer tags "for the purpose of aiding in the erection or the repairing of rural schoolhouses." Of this sum, \$1,000 was for the use of each county. It was provided that none of it could be used in any incorporated place. The school district must raise in advance not less than \$100, and when this had been done there was contributed out of the special fund provided by the State for the county not more than the sum raised by the district and in no case more than \$200. It was required

that these houses be erected on grounds of not less than 2 acres in extent and that they be deeded to the State.¹

The result was instantaneous; from all over the State came reports of developing interest in schoolhouses. Many new ones were erected by means of this State aid; old ones were repaired, and in many cases, patrons and school officials being unwilling to surrender title to the property, erected new houses or enlarged and improved old ones out of private means. In some counties the number built or repaired by private means was as large as that from public funds.

The statistics on this subject for the last eight years, beginning with the year before the schoolhouse law was enacted and coming down to the present time, speak most eloquently of progress.

The total number of rural communities thus aided in 1910-11 was 1,293; in 1911-12 it was 1,393, and the total number was then 6,157. One aspect of this matter, however, is not so pleasing; by an examination of the report for 1910-11, it will be seen that while most of the counties had gladly made use of their appropriations, others had used little or none of this fund. On October 1, 1911, 2 counties had more than \$4,000 each to their credit; 4 had more than \$3,000; 9 more than \$2,000, and 16 more than \$1,000. Of those counties, Mobile was prevented from acting by legal technicalities; the others "taken as a whole * * * present about the poorest showing in the way of suitable rural school buildings of any counties in Alabama." Such was the judgment of the superintendent in 1910-11. According to the report for 1911-12, the same tendency seems to have been accentuated in those counties rather than ameliorated. The counties thus "slow to take advantage of the provisions of this law" lie mainly within what is known in the State as the black belt.

With few exceptions these same counties have not levied the 1-mill county school tax. Having grown out of the habit of helping themselves in supporting their own schools, these counties are somewhat slow in spending their own money in order to receive the State's assistance in erecting better-built school buildings.

It may be that while they own the larger part of the unexpended surplus derived from the State, they are unable in some localities to raise the necessary local funds to meet the State requirements. On this point the superintendent says in 1911-12:

Very little money up to this time has been recommended by the county boards for use in either building or repairing schoolhouses for negroes. It is pleasing, however, to note an apparent disposition on the part of county boards to place this State aid in the future in a larger measure for the benefit of the negro schools. In the black-belt counties, where a large part of this fund remains unexpended, the schoolhouses are among the poorest in the State, except in the villages. The better class of negroes will not much longer be content to keep their families on these black-belt farms unless the county boards make provisions through the privileges of this law to let the State aid those negro communities for the education of their children.

¹ Law of Mar. 3, 1907, p. 174.

The report for 1912-13 shows that 326 schoolhouses received aid from the State to the amount of \$51,402. They were located in 63 counties, and only 4 counties reported no money spent for schoolhouses. "According to the reports of the several counties, however, there is yet a large number of rural schoolhouses uncomfortable, unfurnished, and wholly unsuited for use."

In 1913-14 the sum of \$74,521 was expended in 65 counties.

The growing influence of the law may be shown in a general way by the following statistics of values:

Value of public school property.

Years.	Value public schoolhouses.			Value school furniture.			Number schoolhouses uncomfortable in winter.		
	White.	Negro.	Total.	White.	Negro.	Total.	White.	Negro.	Total.
1906-7.....	\$1,831,462	\$144,240	\$1,975,702	.....	.....	.....	.....	.....	901
1907-8.....	4,003,599	303,310	4,306,909	.....	.....	.....	885	751	1,636
1908-9.....	4,217,045	374,835	4,591,880	459,142	74,095	533,237	688	644	1,342
1909-10.....	5,198,075	432,710	5,630,785	581,705	86,515	668,220	720	781	1,501
1910-11.....	6,149,413	533,033	6,682,446	516,303	70,349	586,652	665	563	1,228
1911-12.....	6,475,771	589,548	7,065,319	547,357	59,438	606,795	481	561	1,042
1912-13.....	6,584,452	608,334	7,192,786	624,322	69,388	693,710	.....	.....	.....
1913-14.....	7,006,536	666,850	7,673,386	674,059	67,846	741,905	.....	.....	.....

¹ First year under new law.

Another matter which has contributed to the advancement of the public rural schools, by separating and individualizing their work, was the appointment of a rural school supervisor, an officer whose expenses are borne by the Peabody educational fund. The choice of the State superintendent for this important position fell upon N. R. Baker, who made his first report for the school year 1911-12. His time was devoted almost entirely to four phases of the problem: Grading, closer supervision, the articulation of the various grades one with another, and vitalization of school work.

He reports that some 60 per cent of the rural schools had been graded up to October 1, 1911, and he thought that by October 1, 1913, 90 per cent would have been graded, this opinion being based upon "actual observation and inquiry among teachers, and the estimates of many county superintendents," and it was said "nearly all counties are now using the uniform course of study suggested by the State department of education." When we turn to the last report of Mr. Baker, that dated November 17, 1913, we find that among other matters promising, in the opinion of the supervisor, to advance the interests of the country schools, besides grading, are improvement of the teaching force, more rural supervision, encouragement of school fairs and libraries, reading circles, consolidation, better sanitation, night lectures, and the issue of "diplomas" to schools possessing certain requirements of equipment, administration, and vitalizing agencies.

The work of Mr. Baker has been confined to supervision of white rural schools. In 1913 the general education board made provision for a State supervisor of negro schools. Mr. James L. Sibley was appointed, and entered upon his work in March, 1913. The latest report shows 1,918 rural negro schools in the State, of which 1,783 are one-room schools. "The crying need of these schools is supervision," says the supervisor, who then continues:

Nearly 50 per cent of the county superintendents reported last year that they did not visit a single negro school. * * * It is almost impossible for a superintendent to visit all of his white and colored schools. * * * What those superintendents need is competent assistants to help them in this work of supervision. * * * Every county superintendent who has a number of negro schools in his county should have a colored assistant to help in the work of supervision. * * * It would pay every county board to employ such a person, preferably a colored woman, with industrial training, to assist the county superintendent. In about 100 counties of the Southern States this past year there were employed, out of the Jeanes fund, colored teachers to act as assistants to the county superintendents, and to stress industrial work. Alabama had 16 of these working in 17 counties.

He then proposed that the counties employ, as they were allowed to do under the law in effect October 1, 1913, such supervisors out of their own funds.

Experience has shown that, on the whole, women make better supervising industrial teachers than men, owing to their ability to reach the homes of the children. It is recommended that these women be employed for 12 months during the year, devoting their time in the winter months to the schools while they are in session, and to canning clubs, corn clubs, and community work in the summer.

It was thought the negroes themselves would be able to pay \$100 to \$150 on the salary of such supervising teacher and that the county should pay from one-half to two-thirds of the whole. Few Government reports are more inspiring than this of Mr. Sibley. After discussing teachers' institutes and farm demonstration work with some detail, he concludes:

The kind of education the negro needs is that which will react on his home. In fact, that is the kind all classes need. Women should know how to make and care for a home. Men should be able to provide for one and maintain it. To do this efficiently, both men and women need moral, intellectual, and vocational training.

In September, 1914, Mr. Baker became assistant superintendent of schools in Jefferson County. He was succeeded by Prof. J. B. Hobdy, and under a new arrangement all of the rural school work, both white and black, will be inspected by both supervisors. Of no less importance than the supervisory work carried on under the auspices of the Peabody fund and the General Education Board is the administration of the law of April 18, 1911, which provides that county superintendents may be employed on full time and placed on a salary instead of a percentage basis. A recent decision of the supreme court upholds the constitutionality of the law, and it became fully operative for the first time in 1913-14.¹ Thirty-

¹ See Alabama reports.

nine counties now have paid supervisors who devote their whole time to the work. The result is that many schools which were formerly visited seldom are now visited regularly. In 1912-13 there were 2,640 visits paid to white schools and 544 to negro schools; in 1913-14 the numbers were 6,528 and 1,329. An immediate result of this supervision has been a closer grading. In 1912-13 there were 3,226 graded white schools and 1,040 graded negro schools; in 1913-14 the numbers were 4,331 and 1,497. Since the total number of city and rural schools in the State is given as 6,753, we may assume that 925, or 13.7 per cent, are still ungraded. Of the teachers in these schools, 857 white and 117 negro hold life certificates; 1,515 and 29 hold first-grade certificates; 2,689 and 510, second grade; 2,256 and 1,754, third grade.

No phase of the rural school work has been of more value perhaps than that undertaken by the School Improvement Association, a voluntary organization of women first begun about 1905. This has now spread into nearly every section of the State and has enlisted the special and direct attention of parents and others in the work of the schools, as was not the case in earlier years. It raised and expended in 1913-14 the sum of \$86,928 in the physical betterment of white public schoolhouses and grounds, an increase of 27 per cent over the former year, and \$7,603 for colored schools, an increase of 78 per cent. The influence of the movement has been far wider than the mere money raised. It has awakened in many sections a sort of proprietary interest in the schools. It has gained a local support which in turn "has worked wonders in many communities in the improved appearances and in the added comfort of the schoolhouses and the grounds about them, together with equipment in desks and other necessary furnishings." It has made its influence felt in legislation and has assisted in the development of rural libraries for children, and in some sections has gone still further, in organizing rural lyceums for the older people. It promises, in fact, to be a real and safe beginning to the problem of the socialization of rural communities which, by reason of isolation, have long suffered from an excess of individualism. Not only has the School Improvement Association organized the forces for the school, but it has kept them organized for the home and the summer vacations, for out of its activities have come, in part at least, such supplemental courses in industrial and vocational training as are represented by corn clubs, tomato and canning clubs, pig and poultry clubs, health clubs, domestic-science and domestic-art clubs, and similar organizations. These have added practicability to the school work, given to its members the power which comes from doing, and developed a new source of income from the proceeds of these activities.¹

¹ See interesting reports of the work of the school improvement association in the proceedings of the Alabama Educational Association for 1908, 170-193; 1909, 231-247; 1910, 260-287; 1911, 165-172, etc.

V. RURAL SCHOOL LIBRARIES AND LIBRARY ORGANIZATIONS.

Perhaps no law which has for its object the intellectual advancement of the people has accomplished more within the time than the rural-libraries law enacted by the legislature in 1911.

The movement of which this library law is a development seems to have come out of the Alabama Library Association, organized in 1904, and of which Dr. Thomas M. Owen has been continuously president. It holds annual meetings, discusses the popular and professional side of library work, and seeks to develop all phases of the public library.

Through its influence the legislature in 1907 revised and extended the duties of the department of State archives and history and made it in all but name a State library commission. It provided that the department shall assist—

in the establishment of public and school libraries and in the improvement and strengthening of those already in existence; it shall give advice and provide assistance to libraries and library workers in library administration, methods, and economy; and it shall conduct a system of traveling libraries.

Then came the Alabama Teachers' Reading Circle, organized in 1909 for the purpose of encouraging general and professional reading among the teachers of the State. In 1910 it changed its name and widened its scope so as to admit the young people of the State to the advantages of its leadership, and the school library law of 1911, proposed by Supt. Willingham and pushed through the legislature because of his initiative was a natural and necessary evolution.

This law, passed April 13, 1911, and applicable only to communities of less than 1,000 inhabitants, provided that \$6,700 for the State¹—\$100 for each county—should be devoted to library purposes. It was to be appropriated by the proper county courts in sums of \$10 to such school districts as should raise \$10 for a similar purpose. To these sums the county was to add \$10 more, and the whole sum of \$30 was to be devoted to "the purpose of establishing, maintaining, enlarging, or improving public libraries in rural, village, or town schools." This law was probably copied from a similar one in force in North Carolina, but it is a patent improvement on its prototype for the reason that it makes these sums available annually.

The passage of the law awakened remarkable interest in the subject throughout the State and its results were quickly manifest.

The report for 1910-11 showed 468 public school libraries for whites and 47 for negro pupils. They had 83,152 and 3,723 volumes, respectively, and were worth \$66,615 and \$2,060. In 1913-14 these

¹ Made available March 15, 1912.

figures had risen to 1,418 and 55 libraries, with 171,288 and 3,044 volumes and valued at \$107,273 and \$2,040. Says Supt. Willingham:

No legislation on the statute books is apparently doing more good in its operation for the money expended. * * * The prospects for the current year in the execution of this library law are highly promising. A large majority of country boys and girls have but little opportunity of broadening their vision through travel, while many of the homes of these youth are not plentifully supplied with valuable and attractive literature. * * * During the year closed there were 3,048 teachers studying systematically the books selected for the Teachers' Reading Circles. This was an increase of about 1,000 over the number of teachers thus following a course of self-improvement during the preceding year. Teachers who themselves read systematically include, for the most part, those who foster and encourage systematic reading on the part of their pupils.

In 1912 the superintendent published an Alabama library list of 1,600 books, carefully prepared and annotated by Dr. Thomas M. Owen, director of the department of archives and history. It was revised and extended by him and republished in 1913, and is intended to serve as a basis for the purchase of school collections and—

to anticipate the growing aspiration of the several communities which will avail themselves of the provisions of the law, as well as to afford a list for teachers, high-school libraries, small public libraries, and others.

That this progressive action on the part of the State will have good effect on the larger libraries is shown by a recent announcement that the library board of Birmingham is now (1914) entering upon a campaign to raise a fund of approximately \$50,000 to be used in the purchase of such new books as will bring the city library system up to modern standards.¹

VI. THE DISTRICT AGRICULTURAL SCHOOLS.

These schools, the beginning of whose organization dates from about 1888, seem to have been the least successful of the State's efforts. And yet the very things which caused their comparative failure pointed out in the most emphatic way the needs of the State at that time, but the legislature failed to read the lesson aright or to interpret it at all, for the time of awakening had not yet come. The purpose of the legislature in creating them was to make them centers for agricultural education. They were the forerunners of the present development of education along the lines of agriculture, industrial, and vocational training. In this respect the legislature was ahead of the people, but the latter knew well enough what they wanted. They took these agricultural institutions and developed them into high schools of the classical type. These schools had made themselves sufficiently felt to be mentioned in the superintendent's report in 1892-1894. The oldest was that for the eighth district and was—

¹ See Library Journal, December, 1913, and January, 1914.

pleasantly situated in one of the prettiest groves within the corporate limits of the classic city of Athens. * * * The college building is a handsome two-story brick, and the main building for the boarding department is a splendid two-story structure, in which the president and his family live with the boarding pupils, giving it more the appearance of a large family than of a boarding school. * * * The school has now, besides the regular college course, departments of music, art, and elocution. The military feature is used as a means of discipline.

The school at Albertville (seventh district), established in 1892-93 and opened in 1894, was similar in character. It reported four departments—primary, intermediate, preparatory, and collegiate. It, too, had provision for elocution, art, and music, but none for agriculture.

The school at Evergreen (second district), also established in 1892-93 and opened in 1894, was known as the Southwest Alabama Agricultural School and Experiment Station. The administrators in control of this school alone seem to have had an idea of the real purpose of the organization. It was located on a farm of 50 acres, and the "definite and well-defined object" which it had in view was to found a school—

where young men who expect to become farmers may be taught the fundamental principles of scientific agriculture * * * and where tests of the analyses of soils and fertilizers may be made, and where experiments may be conducted in the growth of grains, fruits, vegetables, vines, grasses, and in dairy making and stock raising. * * * This school, while denominated agricultural, is not strictly so, as all the other sciences, together with the classics, music, art, and a normal or training department, will be included in its curriculum, and its doors are open to both sexes and pupils of all grades.

These schools evidently made an honest effort to comply with the purpose of the legislature. They failed, but yet their evolution into this type is perfectly logical. The people made them serve what they felt was at that time their greatest need, irrespective of mere name. They changed them from delocalized institutions intended to serve a whole congressional district to purely local ones with a local patronage and organized them to suit their own needs, for in 1900-1901 the total patronage of the schools reached 2,243, divided as follows: College, 881; preparatory, 363; primary, 999.

This development caused dissatisfaction, and a law of 1903 sought to restore them to their original purpose by putting the whole under a single board of control, to which was added for service in connection with that particular school a number of local trustees.

Being thus delocalized they went back to their original plan and have been developing since along their original lines. Says the superintendent in 1911-12:

The course of study * * * has been made more practical in that the subject of agriculture appears to be emphasized more strongly than at any time in the history of these schools. A few of them, however, seem to be having some difficulty in impressing the fact of their usefulness upon the minds of the public, who are not

responding with that patronage which it seems these schools should draw. There is no sort of doubt that every one * * * has a most important function to perform in the teaching of practical scientific agriculture.

In response to this feeling of dissatisfaction there has been a formal effort to bring them still nearer to the original purpose for which they were organized. Says the superintendent in the 1912-13 report:

Last summer at the close of the year's work the board of control of these schools reorganized completely the course of study, with a view to making agriculture and agricultural instruction both in theory and practice the paramount consideration for every student connected with these institutions. Whatever criticism the public may have made of these district schools was based upon the theory that they were not doing the full amount of agricultural work intended by the law establishing them. The board believes that the complete reorganization of the course of study upon which these schools have entered for the year now begun will remove all basis for reasonable complaint of this kind.

The statistics of these schools may be presented as follows from the superintendent's reports. It is not till 1892-1894 that they became of sufficient importance to attract the attention of the superintendent, and the material available is at best incomplete and variable in character.

Statistics of the district agricultural schools.

Item.	1892-94	1896-97	1897-98	1898-99	1900-1901	1901-2	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12	1912-13	1913-14
Number of schools.....	3	7	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Number of pupils.....	616	1,920	2,111	2,268	2,243	2,131	2,311	2,355	2,405	1,811	2,008	2,469	1,214	1,271	1,402	1,443	1,477	1,449
Total income from State.....	\$4,886	\$35,072	\$43,800	\$41,194	\$26,367	\$39,147	\$39,799	\$38,069	\$34,745	\$40,154	\$49,600	\$46,417	\$57,061	\$56,100	\$56,365	\$62,294	\$60,269	\$67,613
Total disbursements.....	\$4,624	\$23,202	\$38,576	\$42,068	\$43,068	\$39,566	\$35,373	\$43,068	\$33,266	\$39,940	\$45,933	\$67,736	\$54,858	\$47,798	\$45,331	\$65,617	\$62,392	\$61,583
Value of property.....	\$75,000	\$130,000	\$130,000	53	\$109,500	\$134,430	\$142,726	\$132,365	\$111,400	\$172,825	\$199,015	\$209,530	\$224,260	\$213,800	47	\$195,100	\$212,975	\$206,000
Number of teachers.....	52	58	58	53	52	49	58	58	58	42	55	59	41	39	47	.....	.....	49
Number of high-school pupils.....	.....	.....	.....	.....	.....	.....	.....	882	.....	1,202	.....	.....	.....	.....	.....	1,089	1,101	1,082
Number of preparatory pupils.....	.....	.....	.....	.....	363	553	1,060	625	.....	.....	.....	.....	.....	.....	.....	361	376	367
Number of primary pupils.....	.....	.....	.....	.....	999	667	830	848	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Number of college pupils.....	.....	.....	.....	.....	881	820	67	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Number studying agriculture.....	.....	.....	.....	.....	1,008	715	802	972	989	1,180	1,068	1,239	1,154	1,078	966	.....	.....	.....
Volumes in library.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,580	4,063	6,150	6,280
Value of library.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$4,250	\$4,425	\$4,250	\$5,400

1 Figures incomplete.

2 Of eight schools.

3 For one school only; no report for 1894-95.

4 Of seven schools.

VII. INDUSTRIAL EDUCATION.

Agricultural education brings us naturally to our next subject—industrial education in primary and secondary schools. The training of defectives dates back to 1852, although no successful work was done until 1858, when the Alabama Deaf and Dumb Asylum was organized. It survived the shock of war, and about 1869 a department for the blind was added. This training was of necessity largely industrial in character.

In 1872 the A. & M. College, now known as the Alabama Polytechnic Institute, was organized and offered instruction along industrial lines to such young white men as had already made some educational progress. Then, in the eighties, came the Marion, Huntsville, and Tuskegee schools, which offered to negro boys and girls such industrial training as they were prepared to follow to advantage. Then the organization of agricultural schools was intended to carry this training further down the line and give it to those white boys who were not able or not prepared to profit by college courses, so that before 1890 every class of youth in Alabama, including the defectives, had had some line of industrial training open to them except the white girls of the State. For them nothing was available except the teachers' courses in the normal schools. To call attention to this situation was to inaugurate a movement for a change.

On January 1, 1895, an act went into effect which created an Industrial School for White Girls. The act provided a board of trustees consisting of the governor, the superintendent of education, the auditor, one from each congressional district and two from the State at large. In this school girls were to be educated "in industrial and scientific branches" and might acquire there—

a thorough normal-school education, together with a knowledge of kindergarten instruction and music; also a knowledge of telegraphy, stenography, photography, and phonography, typewriting, printing, bookkeeping, in-door carpentry, electrical construction, clay modeling, architectural and mechanical drawing, sewing, dressmaking, millinery, cooking, laundry, house, sign and fresco painting, home nursing, plumbing, and such other practical industries as from time to time to them may be suggested by experience or tend to promote the general object of * * * fitting and preparing such girls for the practical industries of the age.

The sum of \$5,000 was appropriated for the first year; \$10,000 for the second; \$15,000 each for 1897 and 1898. The school was located at Montevallo, in Shelby County, and was opened October 12, 1896. The enrollment the first year was 227, divided into five courses, known as normal, business, industrial arts, domestic-science, and college courses. In 1897-98 the enrollment was 368, with 38 graduates. There were then 21 teachers, and while the total appropriation to that date amounted to \$45,000, property had been accumulated worth \$46,279. In 1899-1900 the attendance was 400, and it was said that the institu-

tion had reached the limit of its capacity in the accommodation of pupils. The school term was now lengthened to eight months and a dairy farm was established. In 1906 the State superintendent said that the usefulness of the institution was being retarded by lack of buildings and equipment, but that it was placing a secondary education within the reach of many girls who would otherwise be unable to secure it and that it was "teaching useful industries by which the girls may make a living should necessity require it." While this school, like most others, has not had a career of uninterrupted development, its course has been generally upward. It has widened its vision, extended its courses, and increased its requirements, and as it has thus extended its purview it has passed further and further from the scope of the present study. Its widening ambition is voiced in the change of name in 1911 from the Girls Industrial School to the Alabama Girls' Technical Institute, the purpose now being evidently to do for the secondary and higher education of women what the Alabama Polytechnic Institute at Auburn is doing for men. This wider horizon is reflected in its statistics for 1912-13. It had 525 pupils, with 39 instructors. It enjoyed a total income of \$116,811, of which \$56,506 was principally from the endowment of funds given the institution by the Federal Government and \$36,000 was from the State. It had a library of 5,900 volumes, and its total equipment was valued at \$593,500. In 1913-14 the library contained 6,000 volumes and 2,000 pamphlets and was valued at \$6,000. The report for 1910-11 says that:

Former pupils of this school are meeting with the highest success in all the walks of life open to women. The training they receive here specially prepares them for teaching, and hundreds of them are filling positions in the public and private schools. * * * Technical courses are now being introduced in many of the public schools, and this will increase the demand for teachers trained in this school. Many former students are taking high rank in various industrial pursuits as bookkeepers, stenographers, milliners, dressmakers, nurses, florists, etc. The crowning work of the school, however, is the splendid preparations for home life.

Within the last few years other institutions, some for boys, others for girls, have come to the front and are making themselves felt in the widening educational field. One of these is the coeducational Northeast Alabama Agricultural and Industrial Institute, located at Lineville, Clay County, which for the year 1912-13 reports 596 pupils, half of them in the elementary grades. It offers courses in normal training and domestic science; has property worth \$34,260, and had an income for the year of \$7,896, of which \$3,000 came from the State.

Another institution giving industrial training is the Alabama (White) Boys Industrial School, East Lake, near Birmingham. This institution is essentially reformatory in character, and grew out of a private enterprise subventioned by the State. In 1901-2 it received \$15,000 for the two years; 1903-1906 this sum was increased to \$8,000

per year; during the next quadrennium it reached \$20,000 per year, and in 1911 the sum was made elastic and fixed at \$150 per pupil. In 1912-13 it had 291 pupils and enjoyed an income of \$45,400, of which \$43,200 came from the State. Its property is valued at \$126,000. Efforts to interest the State in a similar institution for girls failed to meet with approval in 1907.¹

The Alabama School for Deaf and Blind offers classes in manual training, and in 1912-13 enjoyed an income of \$80,559, practically all of which was from the State.

It will be noted that these schools, and the district agricultural schools as well, offer their courses mainly to secondary pupils, but the tendency is more and more clearly marked to introduce the elements of agriculture and industrial work into the grades, and thus correlate more closely the work of the schools with the actual duties of life.

VIII. THE COUNTY HIGH SCHOOLS.

Up to the year 1907 the history of public high schools in Alabama had not been different from what it was in other Southern States. There were no public high schools except as attempts had been made to evolve them here and there as a part of the school system of various cities. There had been and were then successful high schools in operation in the State, but they were private or denominational. The pupil who lived in the country or in any except a few of the larger towns must secure his high-school training from private institutions. In fact, as late as 1886 the Alabama Educational Association was still discussing how far the State should aid "high schools, normal schools, and colleges." The right of the State to do this was denied by at least one speaker, who makes a bitter attack on such State aid, being evidently inspired to take this view by the private school interests, which had a practical monopoly of the country and were comparatively well organized. On the other hand, the public high school system, even in the towns and cities, was disjointed and fragmentary. There was little official connection and little correlation between the State-supported public school at the bottom and the State-supported university at the top of the educational system. Each part was independent of and received little or no help from the other.

But the University of Alabama, then under the presidency of John W. Abercrombie, saw the necessity of bridging the chasm between the primary schools and the higher institutions. How could it do this without money? President Abercrombie was fortunately able to interest the authorities of the General Education Board, who agreed to furnish the university with the necessary funds for a professorship of secondary education. When the posi-

¹ See Laws, 1907, p. 185.

tion was filled the choice fell on Mr. Joel C. Du Bose, who, in 1905, nominally as an associate professor of secondary education in the university, in reality as an advance agent for the institution, took the field in an effort to inaugurate a movement looking to a system of State high schools. Mr. Du Bose spent two years¹ traveling over the State, visiting many schools in many localities and preaching the doctrine of a more extended school system. This had its due effect, and the assembly on August 7, 1907,² passed a law which laid the foundation for a high school in each county.

Under the high-school law of 1907 a high-school commission, consisting of the governor, auditor, and superintendent of education, was appointed to locate one high school in each county. The counties were required to furnish 5 acres of land, on which they were to erect a building worth not less than \$5,000. The whole was to be deeded to the State. These schools were to be under the control of the county board of education; rules and regulations for the government and employment of teachers were placed in the hands of the high-school commission. The teachers in these high schools were required to have a first-grade or life certificate, and all matriculates were to pass "a satisfactory examination in the branches of free public instruction in the elementary schools." A matriculation fee of \$2.50 might be charged. For the years 1908-9 and 1909-10 the schools received from the State \$2,000 each. Beginning with July 1, 1911, this amount was increased to \$3,000.

The result of this law was that a keen rivalry sprang up among the various towns and villages for the purpose of securing these schools. Some localities were disappointed in their ambition, but they erected houses and organized high schools in spite of their failure to secure State funds. In this way also the towns were enabled to differentiate and extend their high-school departments, and the demand for State funds and for county high schools was more than the State could supply.

Statistics of county high schools.

Item.	1908-9	1909-10	1910-11	1911-12	1912-13	1913-14
Number of county high schools	22	33	33	42	50	53
Value of property	\$316,500	\$419,024	\$438,792	\$554,637	\$686,574	\$709,066
Number of teachers	49	79	108	155	182	174
Number of students	1,180	1,816	3,041	3,787	4,570	4,996
Number of boarding students	408	601	1,047	1,359	1,725	1,968
Number in average attendance	840	1,019	2,028	2,294	3,484	3,833
State appropriation	\$42,000	\$60,500	\$70,250	\$119,000	\$152,000	\$152,000
Town appropriation	\$5,820	\$5,424	\$5,963	\$4,457	\$2,604	\$4,447
County board of education appropriation ..	\$1,100	\$7,875	\$13,199	\$11,005	\$9,833	\$15,634
Miscellaneous sources	\$1,774	\$7,607	\$11,979	\$19,986	\$29,922	\$39,850
Total income	\$50,694	\$81,707	\$104,347	\$158,641	\$197,540	\$211,924
Total paid teachers	\$45,668	\$70,006	\$88,007	\$126,444	\$159,359	\$166,229
Total expenses		\$78,362	\$99,641	\$148,585	\$190,083	\$206,552
Total volumes in libraries			6,946	7,975	11,030	13,028
Length of term in days				180	180	180

¹ He resigned Oct. 1, 1907.

² See Revised Code of 1907.

It will be noted that there are included in the number of matriculates in some schools a number of seventh-grade pupils. This is a provision made by law to meet the needs of pupils in certain counties whose primary schools have not as yet risen to the requisite standard, and it did much to popularize these schools with the masses.

As high-school salaries go in the Southern States the pay of the principals in these county high schools has been very good. Only one county paid less than \$1,100 in 1912-13, while 23 paid \$1,500; Houston County paid \$1,575; Marengo, \$1,855; and Bibb, \$2,000. The total amount of income varies from \$3,200 in Cleburne to \$8,078 in Dale (1912-13).

With the organization of these high schools, it has been possible to bridge over the chasm which formerly existed between the public schools and the university. They maintain a full four-year high-school course, and with their development and growth the whole scheme of education will be complete. Candidates for college can now in most counties secure the necessary preparation within reasonable distance of their homes.

The patronage, when analyzed, shows that as yet, and as might be expected, about two pupils are from the home locality to every one coming from a distance. But the field of patronage is widening, and that the schools are growing in general favor is illustrated when we note that the 32 schools organized in 1909-10 then had 1,816 pupils and that the same schools had in 1912-13 3,015 pupils.

Careful courses of study¹ have been worked out for these schools which are "directed toward giving each student as far as possible a suitable training for the duties and responsibilities of good citizenship." For this reason they are made thoroughly practical and at the same time fit their graduates, of which there were 299 in 1913, "to meet fully all the college entrance requirements."

Prof. James S. Thomas, of the department of secondary education in the University of Alabama on the foundation established by the General Education Board, has been appointed State inspector for the county, town, and city high schools. There has been associated with him in this work Prof. J. R. Rutland as representative of the Alabama Polytechnic Institute. The value of their services is evident. They make weekly or monthly reports to the university and the State superintendent on the actual conditions; the course of study is made uniform, and the constant visits of the inspectors enable the State through its high-school commission to maintain a common standard as to the quality of the instruction given.

¹ Published in 1910.

Chapter XII.

LOOKING FROM THE PAST AND INTO THE FUTURE.

Just 60 years ago the State of Alabama made its first formal essay toward a State-supported and State-administered public-school system. During this period there have been many ups and downs of educational fortune, but there has been progress. What, in brief, have been the main characteristics of the educational experience of 60 years?

The public-school system of Alabama is based primarily on the grant by Congress of the sixteenth sections to the State for educational purposes. These sections were granted to the people of the respective townships, although it has been judicially decided that the title vested in the State for the benefit of these townships.

The grant did not mean that a great educational fund was established in the State, to be administered by the State as a unit, directed, controlled, and used by it under such conditions as would best promote public education as a whole. It did mean that there were potentialities present in the shape of wild lands which in time, under good management, might be developed and converted into such a fund. The Federal Government furnished the raw material out of which this educational fund was to come. The people of Alabama through their assembly were expected to furnish the machinery and the men by whom these results were to be attained. But the people of Alabama of that day were pioneers and State builders; they were neither financiers nor educationists. As a result the blunders that resulted might have been predicted in part at least.

First of all, it was necessary to sell the best of these lands and invest the proceeds so as to lay the foundations for productive income. The infant State was under the practical necessity of creating a circulating medium, and the line of investment that promised a circulating medium and an income on the fund at the same time was through the State bank, established with branches in various sections of the State. During the thirties speculation was rife all over the Union. Fortunes were quickly and easily made in Alabama as elsewhere. All available school funds seem to have gone into the State bank, and so great were its earnings that it was found possible in 1836 to abolish State taxation and to rely on the State bank to meet the expenses of government. In 1839, since prosperity was

still continuing, the assembly went still further and required the State bank to contribute \$150,000 annually to the support of a public-school system as yet unorganized. In 1840 the annual requirement was raised to \$200,000. This sum may be regarded in part as an annual and just interest on the public-school fund invested in the State bank as a part of its capital stock and in part as a participation of the school system along with other departments of the State government in the amazing, if temporary, success of one of its subordinate activities.

The situation in 1839 was therefore anomalous; by a series of fortunate investments—speculations we might almost say—the State suddenly found itself in possession of an annual income of from \$150,000 to \$200,000 for exclusive use in the promotion of an educational system which had never yet been organized and of which those in authority knew practically nothing. In this dilemma, caused by the absence of knowledge and of organization, the State seems to have been content to distribute such funds as came into its hands among such private and denominational schools as then existed in the State. The funds thus distributed seem to have been only complementary to those coming from private sources, and no controlling and directing interest was asserted by the State or recognized by the recipients. The net result seems to have been that by this use of the public funds they were practically dissipated, and so contributed little or nothing to the evolution of a public-school system. The only permanent gain was the knowledge, based on experience, that the public-school system must be organized with the State, not the individual, as the predominant partner.

To this failure in administration was now added a still more serious misfortune in the practical loss of the principal of the sixteenth section funds with the failure of the State bank.

Perhaps the most natural result of this experience of a generation was an inevitable association in the public mind of the idea of public schools and sixteenth section funds. The former seemed to depend entirely on the latter. They were supported out of its income and without such income they were not even considered. The idea of the public school was that of an institution with an independent source of support coming to the people from without, not from within. To the people of Alabama the public school was at that time not an evolution, it was an importation, supported by a fund of outside origin. It is possible that this fact will explain in part the conservatism of the people even to-day in the matter of allowing local taxes for the support of the system, and it may be that the loss of the principal of the sixteenth section fund with the failure of the State bank and the resulting necessity of raising the annual interest out of taxes instead was not an unmixed evil. It certainly tended to arouse

the people to a realization that the system was their own, whatever it was. It made the success or failure of the system now vital and personal to every man who thought. The wasting of a Federal gift might be venial, but the wasting of State taxes was mortal.

It is evident that to the middle-of-the-century aristocratic slaveholder of Alabama few things could be more foreign than the idea of public taxation for schools. He had been educated in a private, denominational, or endowed institution. He had paid for the instruction received. He was both willing and able to pay for the education of his own children, and for these reasons he was willing to let the public-school fund go for the education of those less financially able. He would subscribe to the public school for his own children and allow the public money to go to the poorer members of society, for to him the public money, even if raised by taxation on himself and his peers, savored of the outside, of Federal influence and of centralization, terms all hateful to men who were sufficient unto themselves and who lived and ruled within their own domain. By mere contrast with this point of view, to the poor man the State bounty came to savor of public charity; in his individual pride he characterized the public system as a pauper system, whose service an exaggerated and undue self-respect frequently forbade him to accept. The slaveholder probably did not, as a rule, emphasize the charity idea; he rather waived his right as a matter of generosity to the less fortunate. It was the poor man, not his wealthy neighbor, who characterized the public schools as a pauper system.

Again, the question of public schools involved the still larger question of an extension of State activities and a further centralization of power. The people of the State were strict constructionists of the theory of Federal power, and what applied to the United States Government applied almost equally as well to the State government. Decentralization was the watchword, and the nearer this reached the individual the better. The very theory of a State-supported and State-controlled system of public education was foreign to the ideas of the rank and file of the men of that day. That this is true is made evident by a perusal of the public utterances of the leaders of the time. For years they had urged that such steps be taken by the State, but the people were exceedingly slow to advance in that direction, as their legislative proceedings will show. The reasons for this slowness are based perhaps as much on a strict interpretation of the constitution as on indifference.

The total result of the first generation of dealing with sixteenth section lands and public schools may be summed up in a single word—experience. The people had experimented in administering the sixteenth section lands, also in investing the funds derived from these lands, and had lost. They had sold their best lands, they had invested

the money in stock of the State bank, and the bank had failed. The net result was that what was intended as a productive fund for certain townships, became, in the form of a paper fund, a charge on all, the interest on which, if paid, would come in due proportion from the counties least able to bear and go in part to those most able to do without, and all this because of the initial mistake of the grant being made to the township and not to the State.

The two elements of progress that seem to have come out of the situation are the evident effort of the State to make an equitable distribution of the fund according to needs rather than the strict letter of ownership and, through the necessity of raising the income of the sixteenth section fund by taxation, a familiarization of the people with this method of securing all school funds.

The sole capital then with which the State began its public-school system was a stock of knowledge gained through a generation of hard knocks in the school of experience, something less than a million acres of land of problematical value, and a paper fund amounting to more than \$1,000,000.

From the first formal organization of the system (1854) all of the public-school funds were raised by taxation, but, coming indirectly and partly as a gift from the State, the people were slow to grasp the idea that they were themselves the ultimate source of this income.

After the school system was finally established in 1854, and its sources of income fixed by law, the question of administration reverted to the older idea of schools without supervision. The people seemed willing enough to spend for schools whatever money was available, but they were not often willing that any of this should be spent either for State or county supervision. The idea seems to have been that the public-school system when once organized was amply able to execute itself. This indicates clearly that the people had not yet been liberated from the memory of earlier days when public funds were merely supplementary to private funds and when the schools were essentially private institutions, with some additional income derived from public endowment or its equivalent. The situation was now exactly reversed. The schools were essentially public; they were supported in the main by public funds, which were, however, for many years increased in amount by fees for tuition and incidentals, and from various other sources. These additional sums in the earlier days were sometimes as much as one-half of the whole, and even in recent years have not been inconsiderable, yet the time has never been, since 1854, when there was the slightest inclination on the part of the State to loosen its hold on the schools or to return to the system of the forties. Supervision won its battle before the Civil War, and since has grown steadily in importance and influence.

During the seven years between 1854 and 1861 the schools were steadily developing and gaining a hold on the people. They were becoming better understood, their resources were increasing somewhat, and they were widening the scope of their activities. There can be no doubt that during these years the system took a lasting hold on the affections of the people of the State. This is indicated by the tenacity with which it held its own during the war and the period immediately following. It is clear that had there been no reconstruction, the schools would have continued developing along the original lines. Their field would have been soon broadened and extended so as to include the negro, and with the recuperation that would have followed with years of peace they would have soon recovered the ground lost during the time of war and outdistanced the best days of the ante bellum period.

But this was not to be. Reconstruction added to the burdens of the white population and worked a hardship upon the negroes, because it carried in its train the hostility of the whites among whom they lived and who were at heart their friends. It meant that the energy which for the next years would have been spent in developing the schools and in building up again the waste places of the State must now be spent in wresting the scepter of government from the hands of the negro and his political allies. In this life and death struggle all else was forgotten. Without autonomy, education was dead. No wonder there was little progress in those eight wretched years. The real wonder is that, when this proud people had again come into their own politically, they so easily and quickly forgot the evils that had been grafted on their system of public schools during the reconstruction period, and after revising and revivifying the new system retained all the good which it had evolved. It seems literally true that the public-school system of Alabama, organized in ante bellum days, conducted during the period of actual hostilities, and maintained so far as available funds would permit through the next three years, gained nothing by its reorganization in 1868. It was not placed in the hands of the men who were best fitted to administer it, either by previous experience, ability, or character. It was too often the prey of the ignorant and the spoilsmen. The nadir of misfortune was reached in 1873, when the schools were practically closed because extravagance, carelessness, and ignorance had already piled upon them a load which they could no longer bear. The tide now turned; and out of the slough of despond, under the leadership of a brave, broad-minded man, a new organization was to rise, an organization for which, whether good or bad, Alabamians alone are responsible and through which they are still seeking to solve the great question of universal education.

After the adoption of the constitution of 1875, and the reorganization of schools which followed it, the permanent existence of the public-school system as one of the regular activities of government was assured. This constitution provided that \$100,000 a year be devoted to the schools; what came to them beyond this sum depended on the general prosperity of the State and the will of the assembly. It is possible that the idea in mind of the constitution makers was that the system contained too many elements of usefulness to be left to the mere will of the assembly. For this reason it was given a formal lease of life by the organic law, with enough income to assure its continuance. Beyond this, expansion could come only as the system appeared to the people to be making good. In truth it must be said that almost another generation passed before it really began to make good.

There were many reasons for this comparative failure—the presence of a different race and a certain amount of inequality in the distribution of funds was one cause; indifference, ignorance, lack of funds, short terms, poor teachers, and poor results were other causes; nor is it worth while to veil the fact that the administration of the department was a matter of politics. Most of the early superintendents were made the party nominee for religious, economic, or social reasons, or as a matter of political expediency. Sometimes there was in the superintendent little of the spirit or enthusiasm of the real teacher or educational missionary who was willing to go into the corners of the State in season or out of season and preach the doctrine of educational salvation. Then, too, with a single exception, during the last 40 years the superintendent has been changed every four years or oftener. Since the adoption of the constitution of 1875 there have been in all 11 individuals who have filled or finished 12 terms of office and this rotation in office is now fixed by the constitution itself. The result is that there can not be the highest degree of continuity in development, for as soon as a superintendent begins to learn the details of his office and so to become master of the situation he must give place to another. He can have no assurance that his plans will be carried out by his successor, and knowing that no amount of success will help him succeed himself, he is under constant temptation to accept other positions before his term of service is over. This has already twice been the case since 1901, when this new constitutional provision went into force.

In earlier days the interests of the schools were not always the main consideration when party nominations were made; partisan politics rather than education sometimes dictated, and it has been by a long and laborious mental process that the people have come to a realization that their educational system is something more than a mere

department of government charged with duties that concern the present. The administration of Maj. Palmer helped to this realization. His success was in part because he had a longer term in which to carry out his plans; he had more funds than his predecessors; he also assisted the cities to realize their needs and urged them along lines of self-help. They were beginning to feel the imperative necessity for more funds; they now began seeking for the means of supplying the need. Unincorporated communities were shut out by the Cullman case—*Schultes v. Eberly*. The Birmingham decision in 1895 cut off income from another class of taxes, but this process of exclusion revealed to them that these funds might be raised on a general city levy and then appropriated in accord with specific enactment to the use of schools. About 1895 the same thing was tried with the counties. They were careful to keep within the constitutional limit of 75 cents on the \$100, but found it possible, through special legislative enactment, to appropriate a part of the funds raised under a general levy to school purposes. Through the development of this idea in the counties it was possible to secure the State-wide act of 1899, which required the counties to make a straight levy of 10 cents per hundred for schools. This levy kept within the total tax limit, but it is not at all certain that it would have passed the test of the courts. The friends of the measure were relieved from anxiety, however, by the constitution of 1901, which adopted the idea, extended it from 10 cents to 30 cents, and made it a part of the organic law. The author of the act of 1899 was John W. Abercrombie, then superintendent. It was through his efforts that it passed the assembly. The light was breaking. The men in charge of the educational department were now practical educators, and while the new constitution did not reflect their full hopes and wishes, it did show the presence of their influence. It was in reality a compromise between the progressive proeducational interests which demanded the fullest rights of local and State taxation and the old conservative and vested interests which wanted little taxation or none at all. The new 30-cent tax for education was levied by the State, collected by the counties, paid to the State, and by it again distributed to the counties. The constitution also made possible an optional county tax of 10 cents on the \$100, but the right of local taxation was still denied to both cities and local school districts, and since then these have become the centers around which the struggle for further progress has been carried on.

The limited success attained through the constitution of 1901 was by no means accidental or exotic. On the other hand, it had its root deep in the soil of other years and is a product of the faithful work of a few men and women in various walks of life—teachers,

school officers, superintendents, and others. Through their efforts such development came as was possible with the limited funds available. Their efforts, their words and actions, made possible the development of that day and paved the way for the constitutional amendment of 1901.

With the new sources of income now at command, the schools began to make a great leap forward, especially in the length of term, in the funds available per child of school age, and in school equipment. With the increase of funds has come also a widening of school activities. This includes the reorganization of the special school district system and its extension to the whole State; the reorganization of the district agricultural schools; the organization of high schools; the increased efficiency of the normal schools; the evolution of the Montevallo Girls' Industrial School into a high-grade technical institute for women; the extension of the work of the university and of the Alabama Polytechnic Institute. All along the line has educational endeavor been awakened and reinforced and reinvigorated. There is now almost everywhere a better and closer supervision, a keener and more general interest in the educational progress of all classes of the population. All phases of educational work, from the primary grades to the university, have been encouraged, inspired, and strengthened.

In no way can this general progress be illustrated better than by comparing the statistics of illiteracy in Alabama in 1880 with those in 1910, as follows:

Total number of illiterates 10 years of age and over.

1880.....	433,447, or 50.9 per cent.
1890.....	438,535, or 41.0 per cent.
1900.....	443,590, or 34.0 per cent.
1910.....	352,710, or 22.9 per cent.

Native white illiterates 10 years of age and over.

1880.....	111,040, or 25.0 per cent.
1890.....	106,235, or 18.4 per cent.
1900.....	103,570, or 14.8 per cent.
1910.....	84,768, or 9.9 per cent.

Foreign white illiterates 10 years of age and over.

1880.....	727, or 7.7 per cent.
1890.....	1,100, or 7.9 per cent.
1900.....	1,313, or 9.3 per cent.
1910.....	2,063, or 11.3 per cent.

Negro illiterates 10 years of age and over.

1880.....	321,680, or 80.6 per cent.
1890.....	330,700, or 69.1 per cent.
1900.....	338,707, or 57.4 per cent.
1910.....	265,628, or 40.1 per cent.

Illiterates 10 to 20 years of age, inclusive.

1880.....	166,395, or 53.5 per cent.
1890.....	¹ 144,665, or 34.8 per cent.
1900.....	133,584, or 28.0 per cent.
1910.....	86,437, or 16.4 per cent.

A study of these census figures will show that while there was a decrease, as measured by per cent of illiteracy in the 20 years between 1880 and 1900, in reality (1) the total number of illiterates increased by 10,000; (2) foreign illiterates increased by nearly 600; (3) negro illiterates increased by 17,000; (4) white native illiterates decreased by less than 8,000. This meant that while the relative amount of illiteracy was less in 1900 than in 1880, the possibility of its final eradication seemed at that time to be almost indefinitely postponed. The publication of these statistics no doubt had its influence in awakening the people of the State. They saw that their public-school system, although nearly half a century old, was not holding its own in the face of growing ignorance. They diagnosed the reason, and they had force of character to apply the proper remedy which, in the case of Alabama, meant mainly more money and equipment. The increase in the school funds shows clearly in the census returns of 1910: The total number of illiterates was reduced between 1900 and 1910 by 91,000; the native whites by 19,000; and negro illiterates by 73,000; and the per cent of illiterates between 10 and 20 years of age, as compared with 1890, was more than cut in half. But according to the State school census of 1914 the figures of to-day are not so satisfactory and give little comfort to those in authority. In discussing illiteracy and the school census of 1914, Supt. Feagin says, in his report for 1913-14:

In the aggregate there are 306,857 white children in Alabama between the ages of 10 and 20, inclusive. Of this number, 280,598 are literate and 26,259 are illiterate. This means that 1 out of every 12, although he has had the opportunity of public education for three years or even more, is still unable to read and write. There are 240,814 colored children in the State between the ages of 10 and 20, inclusive, of whom 170,567 are literate and 70,247 are illiterate. This means that 1 negro in 4, between the aforesaid ages, can not read and write. For our combined population there are 547,671 children between the ages of 10 and 20, inclusive, and of this number 451,165 are literate and 96,506 are illiterate. * * * That conditions are gradually improving no one can deny, but if our number of illiterates decreases in future census decades by the number that it decreased in the last census decade it will require just 65 years to place Alabama and the people of Alabama where they ought to be when educational opportunity is equalized and utilized.

If, however, comparison is made between the situation in 1900-1901 and in 1913-14, it will be evident that substantial progress is being made:

The total number of teachers increased from 6,302 to 9,727.

School property from \$934,065 to \$8,417,291.

Special tax of 30 cents per hundred from \$245,246 to \$1,734,302.

City and county appropriations from \$663,754 (in 1907-8) to \$3,363,859.

¹ Estimated.

The total available funds from \$1,180,283 to \$4,446,076.

Total available funds per capita of school population from \$1.67 to \$5.74.

Total expenditures from \$1,119,397 to \$4,274,458.

Length of school term for whites from 97 to 135 days; for negroes from 82.7 to 104 days.

Per cent of school population enrolled in 1900-1901 was 54.3; in 1913-14 it was 60.5.

The per cent of enrollment in average attendance was 46.9 in 1900-1901, and 61.6 in 1913-14.

The per cent of school population in average attendance was 25.4 and 37.2, respectively.

It does not seem that these phases of the school system, enrollment and attendance, are making progress equal to others. They represent one of the phases of the subject which is crying loudly for an improvement superinduced by law. It is safe to believe also that no such extensive gains are likely to be shown by the census of 1920 as are shown in 1910, for the reason that with the funds now available the public schools have about reached their zenith. Under most favorable conditions, with a given amount of money from year to year, only results of a corresponding grade can be expected. The results of the increased funds available under the constitution of 1901 are now reaching their flood tide; without more funds for expansion they will remain stationary for a time, and then will come necessarily a reaction and the beginning of the ebb. Educational leaders in the State have long grasped the situation and are now bending their energies toward securing legislative sanction for a constitutional amendment permitting local taxation. Such a provision was defeated by a small margin only in the legislature of 1911; no matter of more importance will come before the session of 1915. Defeat is unthinkable, for the people of Alabama are aroused; they are patriotic and it would mean a shock to educational development, an encouragement to illiteracy, a check on progress in general, a moving backward of the shadow on the dial of Ahaz.

With an increase of funds must go also other elements of progress to insure the best results. The most important of these is that of compulsory school attendance. Local taxation and compulsory attendance will doubtless open to the State a new era of educational prosperity. They are to-day vital necessities, and this study can perhaps be ended in no better way than by quoting the words of one of Alabama's educational leaders, who having served as State superintendent has now become president of the State Normal School at Florence. Mr. Henry J. Willingham says in the Educational Exchange for February, 1914:

School attendance is required throughout the civilized world to-day, except in Russia, Spain, and Turkey, and six of the Southern States.¹ How much longer shall we * * * in Alabama be willing to say "Here we rest"? It is gratifying to observe that public sentiment seems to be crystallizing in the demand for a law upon our statute books on the subject of compulsory attendance. God speed the day when it may come.

This only is educational salvation.

¹ Reduced to four in April, 1915.

PUBLIC SCHOOL STATISTICS, 1850-1914.

TABLE 1.—*School population, teachers, property, and school year.*

Years.	Totals, white and negro.			White only.		Value all school property.	Negro.			
	School population.	Teachers.	Schools.	Monthly salary.	Days in school year.		Teachers.	Schools.	Monthly salary.	Days in school year.
1855.....	145,518									
1856.....	171,073		2,281		120					
1857.....	178,096		2,262		125					
1858.....			2,597		122.5					
1859.....										
1860.....		2,038	1,903							
1861-1868.....										
1869-69.....	357,181	2,902	2,824							
1869-70 ¹	387,067		1,845	\$42.58	49			490	\$42.27	49
1871 ²	399,153	3,470	3,321	42.60	66.5		973	922	43.06	64.3
1871-72 ³	403,735	2,650		38.00	72		830		40.00	71
1872-73.....	404,739									
1873-74.....	405,839									
1874-75.....	406,270	3,961	3,898	27.20	86		1,286	1,288		83
1875-76 ⁴			3,632		80			1,027		
1876-77.....	369,447	4,225	4,175	22.50	81.5		1,439	1,415	22.74	77
1877-78.....	370,245	4,800	4,796		84.7		1,462	1,461		80
1878-79.....	376,649	4,675	4,671	18.70	84		1,496	1,494	26.57	79
1879-80.....	387,769	4,615	4,597	20.96	80	\$130,067	1,521	1,512	23.62	67
1880-81.....	388,003	4,698	4,572	23.06	80	285,976	1,645	1,591	23.15	76
1881-82.....	401,002	4,564	4,624	21.70	79	264,457	1,508	1,566	21.88	78
1882-83.....	403,901	4,717	4,824	22.40	80.2		1,569	1,655	22.10	79.3
1883-84.....	419,764	5,182	5,218	24.76	83		1,724	1,797	24.75	83
1884-85.....	420,413	5,392	5,391	23.76	82.4		1,827	1,744	22.78	83.1
1885-86.....	450,968	5,490	5,583	27.59	87.2		1,829	1,925	25.97	87.2
1886-87.....	452,937	5,483	5,583	21.87	70.5		1,853	1,925	21.58	71
1887-88.....	485,551	5,593	5,702	22.31	68.2		1,875	1,958	23.06	67.4
1888-89.....	485,025	5,916	6,009	21.14	69.5		1,968	2,064	21.15	69.2
1889-90.....	522,691	6,143	6,308	22.04	67.7		2,070	2,174	21.05	68.9
1890-91.....	550,522									
1891-92.....	550,522									
1892-93.....	579,887	6,908	6,687		71		2,196	2,248		67.4
1893-94.....	579,887						2,288	2,294		65
1894-95.....	590,737	7,341	7,073	24.03	72.5		2,351	2,326	18.71	65.3
1895-96.....	590,737	7,388	7,011	23.96	72.5		2,484	2,411	18.29	63.8
1896-97.....	590,737	7,519	6,989	22.97	72		2,466	2,347	17.70	64.2
1897-98.....	590,737	7,591	7,231	24.09	72.8		2,503	2,455	18.44	63
1898-99.....	633,546	7,074	6,996	25.06	68		2,301	2,320	17.66	62
1899-1900 ¹⁰	634,061	6,063	3,742				1,857			
1900-1901.....	661,911	6,302	6,199	32.25	97	934,065	1,886	1,962	22.59	82.7
1901-2.....	675,536	6,303	6,907	32.50	105.8	1,842,983	1,852	1,932	22.38	93
1902-3.....	649,374	6,029	6,028	33.00	102	1,622,178	1,791	1,777	22.79	93
1903-4.....	659,795	5,900	6,510	35.43	105	2,161,131	1,518	1,594	24.69	89.4
1904-5.....	679,051	5,716	4,036	40.18	108.2	2,790,022	1,417	1,468	23.43	92
1905-6.....	679,051	6,165	5,715	41.60	109.7	2,925,610	1,555	1,525	24.52	87.3
1906-7.....	638,634	6,519	6,020	43.75	112.8	1,957,702	1,646	1,813	23.53	86.8
1907-8.....	687,274	7,759	5,870	48.52	123	4,306,909	2,019	1,669	25.07	95
1908-9.....	687,274	8,473	6,240	50.92	128	5,175,247	2,126	1,890	25.23	96
1909-10.....	712,769	8,677	6,389	51.60	131	6,416,420	2,243	1,965	26.53	90
1910-11.....	712,769	9,220	6,566	57.77	127	7,358,173	2,364	1,976	33.02	95
1911-12.....	727,297	9,442	6,572	54.50	132	7,672,114	2,344	1,937	33.35	97
1912-13.....	727,297	9,486	6,055	57.20	133	7,886,496	2,371	1,972	34.40	97
1913-14.....	774,976	10,038	6,753	58.34	135	8,427,291	2,516	2,026	30.70	104

¹ School age in 1855, 5-18; in 1856 and 1857, 6-21; in 1868-69 to 1874-75 it was 5-21; beginning with 1875-76 it has since been 7-21.

² Census of 1890.

³ For year Oct. 1, 1869, to Jan. 1, 1871.

⁴ Pay of all teachers, white and black.

⁵ For year Jan. 1 to Oct. 1, 1871.

⁶ For year Oct. 1, 1871, to Sept. 30, 1872; 22 counties not reporting.

⁷ 51 counties only reporting.

⁸ Includes all schools, rural and special district.

⁹ Includes country districts only.

¹⁰ Reports incomplete.

TABLE 2.—Enrollment and attendance.

Years.	Total school enrollment.	Per cent of total school population.	Average school attendance.			Negro.					
			Number.	Per cent of enrollment in average attendance.	Per cent of school population in average attendance.	School population.	School enrollment.	Per cent of school population enrolled.	Average school attendance.	Per cent of enrollment in average attendance.	Per cent of school population in average attendance.
1855											
1856	89,160	52.1	38,265	42.9	22.4						
1857	89,013	49.9	39,887	44.8	22.4						
1858	96,274		42,274								
1859											
1860	161,751										
1861-68											
1868-69	140,000	43.1									
1869-70			52,080			157,918			16,097		
1870-71	141,312	35.4	107,666	76.2	26.9	164,671	54,336	33.0	41,308	76.0	25.1
1871-72	103,615	26.6	73,927	71.3	18.3		41,673		28,406		
1872-73						169,139					
1873-74						172,506					
1874-75	145,797	35.9	110,258	75.6	27.1	172,537	54,566	31.6	43,229	79.2	25.0
1875-76	126,891						48,716				
1876-77	142,571	38.8	103,018	71.6	27.9	155,168	54,949	35.4	40,222	73.2	26.9
1877-78	160,713	43.4	99,125	61.1	26.7	155,625	63,914	41.6	41,659	68.2	26.7
1878-79	174,585	46.3	112,374	64.5	29.9	162,551	67,635	40.9	46,438	68.6	28.5
1879-80	179,490	46.3	117,973	65.7	30.4	170,449	72,007	42.2	50,184	69.4	29.4
1880-81	176,289	45.4	115,316	65.4	29.1	170,413	68,951	40.5	49,475	70.2	28.4
1881-82	177,428	44.2	114,827	64.5	28.5	176,538	69,479	39.3	47,146	67.8	26.7
1882-83	202,513	49.6	127,016	62.3	31.4	178,858	80,420	44.9	53,143	66.1	29.7
1883-84	215,578	51.4	134,410	62.4	32.1	186,209	84,065	45.1	55,566	63.7	29.8
1884-85	233,909	55.6	144,572	61.8	32.9	186,512	80,872	48.7	59,716	65.7	32.5
1885-86	232,871	56.0	152,776	66.4	33.9	201,331	104,150	51.7	62,673	60.1	31.1
1886-87	251,700	55.5	157,718	62.6	34.8	201,331	98,396	48.9	63,966	65.0	31.8
1887-88	258,590	53.3	165,099	63.9	34.0	212,821	98,919	46.5	66,424	67.1	31.2
1888-89	261,667	53.9	166,528	68.2	34.2	212,931	101,649	47.7	66,888	65.8	31.4
1889-90	292,052	55.9	175,168	59.6	33.5	226,925	111,648	49.2	69,507	62.2	30.6
1890-91						240,894					
1891-92											
1892-93	306,014	52.9				269,355	115,709	44.6			
1893-94											
1894-95	323,049	54.6				268,113	118,689	44.2			
1895-96	331,557	56.1					124,618				
1896-97	348,899	59.0					132,413				
1897-98	341,638	57.8					129,355				
1898-99	319,214	50.4				282,879	122,915	43.4			
1899-1900	215,083					282,733	122,915				
1900-1901	359,493	54.3	168,484	46.9	25.4	285,906	125,085	42.3	65,055	52.0	21.9
1901-2	365,816	54.2	188,269	51.4	27.6	301,496	126,116	41.8	68,573	54.3	22.7
1902-3	543,411	52.9	163,137	47.8	26.1	277,659	112,274	44.3	66,588	50.4	23.4
1903-4	339,726	51.5	208,364	61.3	31.7	302,534	117,690	38.8	64,992	55.2	21.4
1904-5	357,661	52.7	208,816	58.4	30.7	302,115	117,044	38.7	72,841	62.2	24.1
1905-6	382,821	56.3	245,441	64.1	36.1	302,115	126,989	42.0	74,987	59.0	24.8
1906-7	394,432	57.3	210,932			307,694	134,005	43.5	75,297	56.2	24.5
1907-8	386,478	56.2	249,030	61.8	36.3	307,252	127,480	41.8	80,068	67.5	28.0
1908-9	405,226	58.9	264,448	65.2	38.5	306,938	133,316	43.5	87,730	65.3	28.7
1909-10	422,785	59.3	265,570	62.8	37.2	322,707	142,813	44.2	99,008	62.3	26.6
1910-11	431,707	60.6				322,707	144,605	44.8			
1911-12	424,075	58.3	254,265	59.5	34.9	328,024	136,272	41.5	79,905	58.6	24.3
1912-13	426,626	58.9	258,768	60.6	35.7	328,024	134,870	41.1	82,871	61.4	28.3
1913-14	468,154	60.5	288,607	61.6	37.2	342,425	147,812	43.1	92,073	62.3	26.9

1 Census of 1880.

2 Estimated.

3 Reports incomplete.

TABLE 3.—School revenues.

Years.	Invested funds: Sixteenth section funds and surplus revenue.	Miscellaneous, including balances.	State appropriations, special and general.	Poll tax.	Constitutional one-fifth mill special tax.	City and county appropriations.	Total.	Available funds per capita of school population.
1850.....							\$103,640	
1851.....								
1852.....							139,841	
1853.....								
1854.....							237,515	
1855.....	\$135,981	\$1,534	\$100,000				267,690	\$1.63
1856.....	151,318	16,372	100,000				281,674	1.56
1857.....	173,084	8,790	100,000				280,253	1.58
1858.....	151,916	19,463	100,000				275,965	
1859.....							283,870	
1860.....							283,870	
1861.....							231,774	
1862.....							268,731	
1863.....							233,978	
1864.....							112,763	
1865.....							413,849	
1866-66 ¹							290,250	
1866-67							45,411	
1867-68							\$524,622	1.47
1868-69	198,207	26,514	300,000				500,409	1.29
1869-70 ²	196,216	4,000	160,803				581,389	1.46
1871.....	166,347		100,000	\$62,580	\$137,290		604,979	1.50
1871-72	199,680	2,000	54,278	113,505	232,462		522,811	1.29
1872-73	200,122	14,000		115,642	235,525		474,247	1.17
1873-74	200,216	13,142		80,487	193,046		454,214	1.19
1874-75	200,510			73,617	209,887		348,891	.86
1875-76	100,427	2,060	150,000	96,414			367,243	.99
1876-77	100,485	121	150,000	116,627			377,500	1.02
1877-78	137,425		130,000	110,135			388,215	1.04
1878-79	137,578	518	130,000	120,125			397,465	1.08
1879-80	137,672	5,197	130,000	124,597	\$60,145		397,479	1.08
1880-81	138,013	1,253	130,000	128,212	\$76,412		392,905	.98
1881-82	138,584	923	130,000	123,398	\$66,990		418,006	1.03
1882-83	139,469	11,864	130,000	136,733			\$506,499	1.21
1883-84	140,025	690	230,000	135,794	\$23,186		\$511,540	1.22
1884-85	141,040	\$2,490	230,000	138,010			523,353	1.17
1885-86	141,348	3,920	230,000	143,085			515,990	1.14
1886-87	141,630	7,264	230,000	\$136,896			506,460	1.17
1887-88	142,361	38,239	250,000	135,127	\$174,183		713,188	1.47
1888-89	143,289	182,049	250,000	137,861	\$184,359		696,698	1.34
1889-90	143,938	53,538	350,000	151,222	\$200,000		699,765	1.27
1890-91	144,685	52,277	350,000	152,803			698,672	1.20
1891-92	145,110	57,018	350,000	146,545			698,610	1.40
1892-93	145,536	52,372	350,000	145,702			738,577	1.37
1893-94	145,885	166,635	350,000	143,751			809,124	1.40
1894-95	146,270	98,950	350,000	143,357			817,242	1.39
1895-96	145,000	168,888	350,000	145,235			803,000	1.27
1896-97	145,000	184,680	350,000	146,374			1,150,283	1.67
1897-98	145,000	168,794	350,000	153,448			1,204,135	1.79
1898-99	145,000	57,584	450,000	150,416				
1899-1900	149,237	163,969	450,000	152,853				
1900-1	150,764	78,240	550,000	156,043				
1901-2	153,898	97,545	550,000	145,563				

¹ Estimated.² Income 1860-1865 from auditor's reports.³ Income 1865-1868 from superintendent's reports.⁴ Income 1868-69 to 1877-78 from superintendent's report for 1877-78, p. xxxviii.⁵ Auditor's figures begin.⁶ For 15 months, Oct. 1, 1869, to Jan. 1, 1871.⁷ For 9 months, Jan. 1 to Oct. 1, 1871. Since that date the fiscal year has run Oct. 1 to Sept. 30.⁸ Figures in this column, 1879-90 to and including 1889-90, are private contributions and not counted in auditor's report.⁹ Figures of superintendent; poll tax then a local matter and not reported to auditor.¹⁰ Income 1887-88 to date from auditor's reports. Prior to 1887-88 totals exceed auditor's by amount of poll tax. Prior to 1883 auditor gives only receipts of sixteenth section funds.¹¹ The law of Feb. 23, 1899, and subsequent laws provided \$165,000 to cover the total interest carried by these funds.¹² From 1900-1901 the figures in this column are the special State tax of 10 cents on the hundred levied by the legislature of 1899 and the 30-cent tax provided by the constitution of 1901.

TABLE 3.—*School revenues*—Continued.

Years.	Invested funds: Sixteenth section funds and surplus revenue.	Miscellaneous, including balances.	State appropriations, special and general.	Poll tax.	Constitutional one-fifth mill special tax.	City and county appropriations.	Total.	Available funds per capita of school population.
1902-3.....	\$154,406	\$89,151	\$550,000	\$100,893	\$273,437	.....	\$1,167,887	\$1.78
1903-4.....	154,882	73,264	550,000	126,517	281,211	.....	1,185,874	1.80
1904-5.....	155,667	80,934	.....	89,811	890,545	.....	1,206,957	1.78
1905-6.....	156,496	85,098	.....	117,566	927,423	.....	1,286,583	1.90
1906-7.....	157,653	60,766	.....	101,710	962,334	.....	1,302,463	1.89
1907-8.....	158,256	51,203	300,000	124,443	1,070,006	\$663,754	2,367,662	3.44
1908-9.....	159,192	\$59,430	350,000	102,959	1,282,818	508,243	1,703,908	3.73
1909-10.....	160,041	\$51,411	350,000	245,112	1,358,082	730,140	2,562,642	4.06
1910-11.....	160,232	\$60,771	350,000	143,988	1,399,371	1,604,951	2,894,836	5.22
1911-12.....	161,054	\$57,235	350,000	179,096	1,482,594	1,589,349	2,164,646	5.09
1912-13.....	162,024	\$73,929	350,000	136,836	1,565,472	1,002,011	3,719,313	5.92
1913-14.....	167,798	(*)	350,000	204,860	1,734,302	\$531,937	2,114,362	5.74

¹ The law of Feb. 23, 1899, and subsequent laws provided \$165,000 to cover the total interest earned by these funds.

² From 1900-1901 the figures in this column are the special State tax of 10 cents on the hundred levied by the legislature of 1899 and the 30-cent tax provided by the constitution of 1901.

³ These are the auditor's figures, which represent the sums passing through the State treasury. The superintendent reports for this year \$1,289,399, which is equal to the sums reported by the auditor increased by local, city, and county funds which do not pass through the State treasury.

⁴ This column stands for local funds contributed by cities and county funds raised by the special 10-cent county school tax.

⁵ Top row gives superintendent's figures, found by adding to the auditor's total (bottom row), the local, county, and city contributions given in column 6. There are also included in the superintendent's total various miscellaneous sums like fees, supplements by patrons, etc.

⁶ Not found in the auditor's report but made up by subtracting from his total the total of columns 1, 3, 4, 5. In 1913-14 the amount apportioned was less than the total of these columns.

⁷ Superintendent's report, 1912-13, p. 147.

⁸ Ibid., p. 144.

⁹ City appropriations only.

¹⁰ Superintendent's report, 1913-14, p. 119.

TABLE 4.—*School expenditures.*

Years.	Total for white teachers.	Miscellaneous, including supervision and administration.	Normal schools.	Total for negro teachers.	Total expenditures, all purposes.	Balance on hand.
1855.....					\$146,825	.....
1856.....					490,278	.....
1857.....					532,984	.....
1858.....						
1859.....						
1860.....					489,274	.....
1861.....					283,870	.....
1862.....					231,774	.....
1863.....					268,731	.....
1864.....					233,978	.....
1865.....					112,783	.....
1866-67.....					413,849	.....
1866-67.....					290,250	.....

¹ From treasury for all purposes.

² Includes local funds, not reported to auditor.

³ This item is substantially like those for 1856 and 1857. Practically all expenditures of those days were for teaching.

⁴ This was the amount reported to auditor.

⁵ Amount apportioned, but not all was used for schools.

TABLE 4.—*School expenditures*—Continued.

Years.	Total for white teachers.	Miscellaneous, including supervision and administration.	Normal schools.	Total for negro teachers.	Total expenditures, all purposes.	Balance on hand.
1867-68.....					\$44,773	
1868-69.....		\$52,662	\$5,372		502,156	
1869-70.....	\$269,569	10,913	25,000	\$194,927	491,193	\$9,216
1871.....	\$317,416	40,750		230,357	588,523	2,082
1871-72.....	318,288	40,550	10,750	234,600	605,420	1,641
1872-73.....	271,420	37,050	9,750	202,812	521,032	3,429
1873-74.....	204,791	28,050	8,000	163,460	404,301	779
1874-75.....	282,390	30,587	10,000	207,102	530,079	2,605
1875-76.....	195,860	6,150	8,000	141,416	351,426	70
1876-77.....	228,817	7,532	10,000	159,884	396,266	
1877-78.....	204,581	6,077	10,000	145,423	369,080	141
1878-79.....	208,569	12,615	10,000	155,850	387,033	8,303
1879-80.....	203,681	12,048	13,500	158,913	388,141	9,325
1880-81.....	225,868	12,420	13,500	158,902	410,690	427
1881-82.....	222,996	12,215	15,500	152,890	403,002	\$11,500
1882-83.....	252,740	12,860	15,500	167,398	448,498	690
1883-84.....	285,650	14,446	21,500	202,131	522,727	\$1,180
1884-85.....	298,260	14,691	21,500	204,499	538,950	
1885-86.....	303,661	15,661	25,500	198,221	543,044	\$3,421
1886-87.....	291,884	15,556	25,500	194,380	527,320	585
1887-88.....	284,181	13,903	36,500	183,934	585,159	181,801
1888-89.....	295,906	16,099	23,000	201,218	659,803	53,395
1889-90.....	323,737	15,896	30,500	208,180	648,135	\$50,563
1890-91.....	330,896	16,129	30,500	208,995	644,656	\$55,109
1891-92.....			30,000		647,400	51,272
1892-93.....	\$555,380		30,000	(5)	530,015	163,595
1893-94.....			30,000		554,092	97,264
1894-95.....			31,000		571,384	167,193
1895-96.....			32,000		625,715	183,409
1896-97.....			32,000		658,539	167,514
1897-98.....			32,000		760,804	56,438
1898-99.....			32,000		845,877	157,123
1899-1900.....			32,000		840,943	75,116
1900-1.....			44,500		1,084,331	95,952
1901-2.....			44,500		1,119,397	84,738
1902-3.....	\$904,190		44,500		1,098,113	69,773
1903-4.....	\$902,510		54,500		1,107,356	78,018
1904-5.....			54,500		1,124,782	82,175
1905-6.....			54,500		1,228,393	55,190
1906-7.....			54,500		1,253,825	48,638
1907-8.....	1,922,334		74,500	273,001	2,196,335	\$172,327
1908-9.....	2,143,662		79,500	287,045	1,652,916	50,992
1909-10.....	2,417,379		85,700	329,095	2,431,708	130,933
1910-11.....	\$2,507,669	796,062	85,500	357,585	1,905,993	48,405
1911-12.....	\$2,553,364	708,185	118,500	375,192	2,746,473	148,363
1912-13.....	\$2,704,565	678,196	114,500	395,674	2,105,173	59,473
1913-14.....	\$2,962,168	910,683	114,500	401,607	3,719,313	106,225
					2,079,004	35,353
					3,547,355	155,756
					2,031,039	54,336
					3,888,593	104,978
					2,126,379	17,223
					4,274,458	171,618
					2,273,436	15,501

¹ Amount apportioned, but not all was used for schools.

² Superintendent's figures.

³ Auditor's figures begin.

⁴ Includes local funds, not reported to auditor.

⁵ Includes white and black.

⁶ Includes supervision; white and black.

⁷ Top row gives superintendent's figures and includes local county and city funds, of column 6, table 3; lower row gives auditor's figures, who excludes all funds that do not pass through State treasury.

⁸ Presumably includes greater part of sums paid for supervision.

TABLE 5.—*Assessed valuation of property.*

1848.....	* \$191,761,000	1881.....	\$152,920,000	1898.....	\$260,201,000
1849.....	* 62,536,000	1882.....	151,520,000	1899.....	262,144,000
1850.....	* 66,381,000	1883.....	156,618,000	1900.....	270,406,000
1851.....	* 66,353,000	1884.....	167,124,000	1901.....	288,657,000
1852.....	* 79,233,000	1885.....	172,528,000	1902.....	288,446,000
1853.....	* 80,289,000	1886.....	173,808,000	1903.....	311,100,000
1854.....	* 92,021,000	1887.....	214,925,000	1904.....	326,173,000
1855.....		1888.....	228,869,000	1905.....	347,228,000
1856.....	* 110,992,000	1889.....	245,917,000	1906.....	374,850,000
1857.....	* 122,295,000	1890.....	258,979,000	1907.....	450,288,000
1858.....	* 126,949,000	1891.....	275,316,000	1908.....	467,784,000
1859-1875.....		1892.....	260,926,000	1909.....	484,350,000
1876.....	135,535,000	1893.....	263,081,000	1910.....	508,568,000
1877.....	130,799,000	1894.....	244,586,000	1911.....	541,764,000
1878.....	126,773,000	1895.....	242,537,000	1912.....	568,907,000
1879.....	123,757,000	1896.....	246,063,000	1913.....	580,588,000
1880.....	139,077,000	1897.....	259,427,000	1914.....	615,380,000

* Includes slaves.

* Slaves not included.

ADDENDUM.

After the above story of public school education was put into type the State legislature met in its regular quadrennial session early in January, 1915, and after remaining in session for 20 legislative days adjourned on February 19 to reassemble on July 13, 1915.

The principal educational work accomplished includes an act providing for a literacy commission, and an act authorizing the State board of examiners to grant teacher certificates to graduates of certain institutions of higher learning who have had an amount of professional training approved by said board of examiners, and to those who hold unexpired certificates in other States for a time not to exceed that of the unexpired certificate.

By a two-thirds vote the legislature submitted to the people for popular ratification a proposed amendment to the State constitution, providing that the counties be given power to levy a special tax not exceeding 50 cents on \$100 and that the school districts, including incorporated cities or towns, be also given power to levy a special tax of not over 50 cents on \$100, provided "that no district tax shall be voted or collected except in such counties as are levying and collecting not less than a 3-mill special county tax." No tax may be levied except by consent of the majority of the voters, who may also fix the rate and the time the tax is to continue.

This tax proposition will be passed on by the electors at the regular election to be held in November, 1916. In a final word of exhortation Supt. Feagin says in his last report:

The several lines of improvement suggested in this report, including better teachers, longer terms, better attendance, better buildings, better equipment, better organization, better administration, better supervision, all depend upon the willingness and authority of the taxpayers to finance the same. * * * In a word, if Alabama's educational needs were to be resolved into one supreme requirement and that requirement were translated into law, it should be written large: Local taxation, first by counties, and then by districts.

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G. B. Duval, September 20, 1858, to May 5, 1860.

Deals with deaf and dumb institutions, sixteenth sections, moneys, notes, interest, etc.—the details of the system, little on the principles.

Duval, Allen, and Taylor, June 1, 1860, to April 29, 1865.

Of considerable value; contains practically all that we have of the war period.

Dr. N. B. Cloud, June 26 to August 14, 1869.

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INDEX.

- Abercrombie, J. W., and public schools of Alabama, 135; and secondary education, 184-185; recommendations for public schools, 138-139.
- Academies. *See* Private schools.
- Academy, near Statesville, Autauga County, 20.
- Administration of schools, 50; unification, 140.
- Agricultural education, discussion, 51-52.
- Agricultural experiment stations, establishment, 132.
- Agricultural schools, district, organization and history, 136-137, 178-180.
- Agricultural Society, Greensborough, property, 19.
- Alabama, evolution of, 7-15.
- Alabama, Territory of, districts, 11-13; established by Congress, 8.
- Alabama, University of, and secondary education, 184-185; begins summer school, 144.
- Alabama Deaf and Dumb Asylum, work, 182.
- Alabama Educational Association, advocates local taxation, 121; organization, 76.
- Alabama Educational Journal, founded, 76.
- Alabama Female Institute, takes over property of Tuscaloosa Female Academy, 20.
- Alabama Girls' Technical Institute, work, 182-183.
- Alabama Institute of Literature and Industry, establishment, 20.
- Alabama Journal of Education, merged into the "Advance," 160.
- Alabama Medical University, authorized to confer degree, 21.
- Alabama Polytechnic Institute, summer school for farmers, 144.
- Alabama Progress, establishment, 125, 126, 160.
- Alabama School for Deaf and Blind, work, 184.
- Alabama Teachers' Journal, founded, 126.
- Alabama (white) Boys' Industrial School, work, 183-184.
- American Board of Commissioners for Foreign Missions, industrial schools established, 23-24.
- American settlements, Tombigbee River, 11.
- Appropriations, 121, 134.
- Appropriations and expenditures, 104.
- Armstrong, H. C., and public schools in Alabama, 119-120.
- Athens Female Academy, establishment, 18.
- Athens Male Academy, teachers and students exempted from military service, 19.
- Attendance, school, discussion, 196; statistics, 198.
- Baker, N. R., and rural school supervision, 174.
- Baldwin County, fund for schools, 24.
- Bank of Alabama, and school funds, 27-30.
- Barton Academy, used for public school, 44.
- Beginning of a new era (1898-1914), 135-140.
- Bibb, Governor, and education, 17.
- Bibliography, 203-206.
- Biloxi, settlement in 1699, 7.
- Birmingham, public schools. *See* City schools.
- Blind, education, 184.
- Blountville Academy, funds, 24.
- Board of education, State. *See* State Board of Education.
- Books for teachers, recommended, 67.
- Box, L. F., and public education, 118-119.
- Centenary Institute of the Alabama Conference of the Methodist Episcopal Church, authorized to confer degrees, 21.
- Central Masonic Institute. *See* Masonic University.
- Certificates, teachers, legislation regarding, 149-150.
- Chapman, Reuben, message regarding common schools and agricultural education, 51-52.
- Chickasaw Indians, schools, 23-24.
- Chisholm, M. A., service as State superintendent of schools, 84.
- Choctaw Indians, schools, 24.
- City schools, organization and development, 162-168.
- Civil War, education during, 78-83; private schools prior to, 16-25.
- Claborne Academy, purchase of site, 18.
- Clark, T. H., on the boat as an emblem of progress, 14.
- Clark, W. G., study of school systems, 45-46.
- Claxton, P. F., letter of transmittal, 5.
- Clayton Male and Female Academy, establishment, 21; exempted from taxation, 25.
- Cloud, N. B., and public schools of Alabama, 89-90; on pay of public school teachers, 94; on reconstruction in the public schools, 84.
- Codification of school laws, 131.
- Colleges and universities, 20-22, 144, 184-185.
- Collier, H. W., message regarding common schools, 52-55.
- Commissioner of Education. *See* United States Commissioner of Education.
- Compulsory education, advocated, 149.
- Concord Academy, income, 18.
- Congressional district agricultural schools, law governing them amended, 136-137.
- Constitution of 1875, educational provisions, 114-116.
- Constitution of 1901, educational provisions, 140-142.
- Coosawda Academy, property, 18.
- Council, W. H., and education of negroes, 171.
- County high schools. *See* High schools, county.
- County superintendents, appointment and duties, 116-117; average salary in 1874-75, 109; protest against selecting from among lawyers and politicians, 121.
- County system, basis of administration, 143-144.
- Courses of study, 65-67; flexible, for ungraded country schools, 126; tendency to develop into cultural, 134.
- Curry, J. L. M., on education in Alabama, 128-129.
- Curry collection, 6.
- Dayton Literary Association, authorized to confer degrees, 21.
- Deaf and dumb, education, 182.
- Deatur, public schools. *See* City schools.
- Degrees, 20-21.
- De Narvaez, early visit, 7.
- De Soto, exploration, 7.
- District agricultural schools, organization, and history, 178-180.
- Du Bose, J. C., associate professor of secondary education in University of Alabama, 185.
- Duval, G. B., on educational conditions in Alabama, 77-78.
- Economy in administrative expenses, 96.
- Educational fund. *See* School fund.
- Educational institutions (1850), 55.
- Educational journalism, 125-126, 160.
- Educational legislation. *See* School laws.
- Enrollment, 69, 106, 120, 148, 198.
- Eufaula, public schools. *See* City schools.
- Evergreen Male and Female Academy, no spirits to be sold in vicinity, 21.
- Examinations, teachers, correction of evils, 136.
- Expenditures, school, statistics, 200-201.
- Explorations, French and Spanish, 7-8.
- Feagin, Supt., on school improvement, 202.
- Fleming, W. L., on State system of textbooks, 95.
- Franklin Academy, holding of land, 20.
- Franklin Female Academy, exempted from taxation, 19.
- Freedman's Bureau, work, 169.
- Funds public, schools supported in part, 23-25.
- General Education Board, and professorships of secondary education, 184-185.

- Georgia, contention between United States, 8; relation to Alabama, 15.
- Girls' Industrial School. *See* Alabama Girls' Technical Institute.
- Glover, E. C., on free textbooks, 148.
- Graded schools, progress, 126.
- Green Academy, establishment, 18; funds for schools, 24.
- Greenville Academy, property, 19.
- Gunnels, H. C., and public schools of Alabama, 139.
- Harris, E. R., on education in Alabama, 147.
- Harris, J. G., and public schools in Alabama, 127.
- Henry County Academy, lottery for buildings, 19.
- High school commission, 185.
- High schools, county, history, 184.
- Hill, I. W., and public schools of Alabama, 142.
- Hobdy, J. B., supervision of rural schools, 175.
- Hodgson, Joseph, first conservative superintendent, 96; on depressing elements in school life, 100; on negro education, 85-86.
- Howard College, allowed to grant degrees, 21.
- Hundley, O. H., and amendment of the constitution, 130.
- Hundley constitutional amendment, 127-134.
- Huntsville Library Co., incorporation, 18.
- Huntsville State Colored Normal and Industrial School, work, 171.
- Illiteracy, statistics, 194-195.
- Immigration, development, 9-15.
- Income, school (1874-75), 110.
- Indian trails, lines of travel of immigrants, 12-13.
- Indians, mission schools, 23-24.
- Industrial education, negroes, 171-172.
- Industrial school for white girls, established, 131.
- Industrial schools, 23-24, 162-164.
- Jefferson Academy, establishment, 19; funds raised by lottery, 18.
- Journalism, educational. *See* Educational journalism.
- Lafayette (Female) Academy, memorial to Congress for quarter section of land, 24.
- La Grange College, charter and plans enlarged, 22; establishment, 19.
- Lancastrian plan for school, Huntsville, 19.
- Land grants, sixteenth sections (1819-1914), public school support, 26-41.
- Land notes, sixteenth-section, 119.
- La Salle, idea of French Empire, 7.
- Laws, school. *See* School laws.
- Legislation, school. *See* School laws.
- Libraries and library organizations, rural schools, 177-178.
- Lotteries, for educational purposes. *See* Private schools.
- Louisiana, Province of, encouragement of immigration by English, 10-11.
- McGehee College, chartered, 22.
- Madison College, incorporation, 20.
- McKleroy, J. M., on educational conditions in Alabama, 106-109.
- Manual Labor Institute of South Alabama. *See* Madison College.
- Martin, W. J., on school lands, 39.
- Masonic University, established, 22.
- Medical College of the State of Alabama, chartered, 22.
- Meek, A. B., and establishment of public school system, 58-63.
- Military education, appropriations, 79.
- Milton Academy, lottery for buildings, 18.
- Mission schools, for Indians, 23-24.
- Mobile, history of public schools, 162; income and expenditures of schools, statistics, 47; local taxation for schools, 122; loss in annual revenue, 151; oldest settlement, 11; rise of public schools, 42-47; struggle between the old régime and the new, 90-93.
- Mobile College, establishment, 20.
- Mobile County, system of schools, 115.
- Montgomery, public schools. *See* City schools.
- Montgomery Academy, lottery for buildings, 18.
- Moulton Library Company, establishment, 18.
- Negroes, entitled to share of sixteenth-section fund, 85-86; illiteracy, 194; schools, 156-157, 168-172, 175, 196-202; statistics, 9; suffrage, 191.
- Normal institutes, supported by Peabody fund, 125.
- Normal schools, history and activities, 125, 155-161; statistics, 200-201; white male teachers, at Florence, 101.
- North Alabama College, chartered, 22.
- O'Neal, Governor, on educational legislation in Alabama, 153-154.
- Opelika, public schools. *See* City schools.
- Organization of schools, weakness of law of 1854, 64-65.
- Owen, T. M., and rural school libraries, 177-178.
- Palmer, Solomon, and public schools of Alabama, 120.
- Paterson, W. B., and negro education, 170.
- Peabody fund, and normal institutes, 125; training teachers, 157-158.
- Pedagogy, professorship, University of Alabama, 184-185.
- Perry, W. F., and sixteenth-section funds, 116; on character and value of schoolhouses, 70; on condition of public schools, 56-57; defense of the county superintendents, 74; on increase of school fund, 70; on organization of schools, 63-64; on the textbook question, 77.
- Phillips, J. H., on local taxation of schools, 124.
- Phylomathian Society, establishment, 19.
- Pickett, A. J., on immigration to Louisiana, 11.
- Pierce, John, and establishment of first American school, 17.
- Population, census of 1880, 14-15; statistical view of growth from 1800-1910, 9; statistical view of the sources, 1850-1900, 9; white, in 1850, 55.
- Population, school, statistics, 197.
- Porter, B. F., and sixteenth section grants, 30-32.
- Property, school, statistics, 197; value, 174.
- Private schools, before the Civil War, 16-25; importance, 126.
- Public and private schools, differentiation between, 50.
- Public schools, reorganization and progress (1876-1898), 114-124; (1856-1865), work, 69-83.
- Reading circles, teachers, history, 159; organization, 125.
- Reconstruction period, schools during, 64-113.
- Redistricting public schools, 142-143.
- Revenues, school, statistics, 199-200.
- Reynolds, R. M., on sale of school lands, 36-37.
- Roads, improvement by Federal Government, 13.
- Rural schools, libraries and library organizations, 177-178; statistics, 173-176.
- Rutland, J. R., and secondary education, 186.
- Ryan, J. B., on educational conditions in Alabama, 83.
- St. Stephens Academy, establishment, 18.
- Salaries, county superintendents. *See* County superintendents' salaries.
- Salaries, teachers. *See* Teachers' salaries.
- School administration, 50.
- School attendance, discussion, 196.
- School codes of 1877 and 1879, 116, 119.
- School districts, creation of separate, 132; power to levy taxes, 122-124; taxation, 127.
- School expenditures, statistics, 200, 201.
- School fund, 58, 62, 107, 124, 135; administration of sixteenth section land, 26-41; apportionment, 75-76, 85, 97-98; appropriation during war period, 79; distributed in the year 1856, 69-70; income, 69, 73; indebtedness of State to, 24, 35; insufficient to meet needs, 150; principal of the sixteenth section, 41; under constitution of 1901, 145.
- Schoolhouses, 44-45; character and value, 70-71; expenditures, 144-145; issuing bonds for, 136; need of better, 126; rural, 172-173.
- School Improvement Association, and rural school work, 176.
- School indemnity lands, sale, 131.
- School laws, discussion, 71-73, 101-113; first passed, 42-43; general administration of schools, 149; history, 60-64; organization of public schools, 48-50; teachers' certificates, 149-150. *See also* School codes.
- School money, law regarding apportionment, 40.
- School organization, weakness of law of 1854, 64-65.
- School population, in the year 1856, 60; statistics, 197.

School property, statistics, 197, 202.
 School revenues, statistics, 199-200.
 School system, résumé of history and conditions, 187-202.
 School term, in 1887-88, 124; minimum length fixed, 137.
 School township, first incorporation, 27.
 School year, statistics, 197.
 Secondary education, and the University of Alabama, 184-185.
 Secondary schools. *See* High schools.
 Selma, public schools. *See* City schools.
 Settlements, early territorial days, 11-13.
 Shepherd, C. O., on general interpretation of school law, 72-73.
 Sibley, J. L., supervision of negro rural schools, 175.
 Sixteenth-section land notes, 119.
 Slaughter, J. N., on method of selecting State and county superintendents, 121.
 Smith, Walter, on public-school buildings, 44.
 Solenn Grove Academy, annual income, 18.
 Somerville, James, on educational provisions of the constitution of 1875, 115-116.
 Southern Military Academy, funds raised by lottery, 22.
 Southwest Alabama Agricultural School and Experiment Station, work, 179.
 Sparta Academy, lottery for buildings, 18.
 Speed, J. H., on educational experiences of the past, 101.
 Spring Hill College, permitted to confer degrees, 20.
 State board of education, establishment and functions, 87-88.
 State school system, experimental period in organization, 48-57; organization, 58-68.
 State superintendent of schools, 56-57, 89-90, 96, 119-120, 135, 146, 202; duties, 61, 67-68; protest against selecting from among lawyers and politicians, 121.
 Statistics of educational institutions, public and private, 50.
 Statistics of public schools, 69-70, 78-79, 105-106, 124-125, 148, 197-202; Reconstruction period, 94.
 Summer schools, 144.
 Summerfield Female Seminary, establishment, 20.
 Superintendent, State. *See* State superintendent of schools.
 Superintendents, county. *See* County superintendents.
 Supervision, county, progress, 137; lack of efficient, in school act, 62; private schools, 16-17; rural schools, 174-175.
 Supreme Court of the United States, decision regarding school lands, 40.

Taxation, public schools, increase in 1898-99, 121; local, 122-124, 133, 135-136; methods, 151; no law exempting school property till 1832, 16; recommendations, 151-152; school districts, 127; special districts, 126; under constitution of 1901, 140-142.
 Taylor, J. B., on educational conditions in Alabama, 80-83.
 Teachers, examination and certification, 144; examinations, correction of evils, 136; exempted from military service in 1825-26, 24; statistics, 197; total expenditures for, 200-201; training. *See* Normal schools.
 Teachers' associations, discussion, 158-159; organization, 125.
 Teachers' certificates, legislation, 149-150.
 Teachers' institutes, new law passed, 158; organization, 125.
 Teachers' salaries, difference between city and rural instructors, 150; high schools, 186; in 1867-72, 101; Reconstruction period, 94.
 Tennessee, relation to Alabama, 15.
 Textbook commission, created, 136.
 Textbooks, 68-67, 77; changes and variations, 126;
 State system during Reconstruction period, 95.
 Thomas, J. S., and secondary education, 188.
 Township, school, first incorporation, 27.
 Tuition fees, public schools, 137.
 Turner, J. O., and public schools of Alabama, 131.
 Tuscaloosa, public schools. *See* City schools.
 Tuscaloosa Female Academy, raising funds by lottery, 19.
 Tuscaloosa Library Company, property, 19.
 Tuskegee Normal School, establishment and work, 171-172.
 United States Commissioner of Education, and education in Alabama, 127.
 University of Alabama, and secondary education, 184-185; summer school, 144.
 Valley Creek Academy, grant of lands, 24.
 Washington, Booker T., and negro education, 160, 172.
 Washington Academy, establishment, 17.
 Wesleyan Female Academy, incorporation, 20.
 West Florida, reorganization of territory by English, 8.
 Wilcox Society, property, 19.
 Willingham, H. J., and public schools in Alabama, 146; on school attendance, 196.
 Winston, Governor, vetoes various college and academy acts, 16.
 Winston, J. A., on county superintendents, 73.
 Women, education, 18-19, 20-21, 24-25, 131, 182-183.
See also Private schools.

BULLETIN OF THE BUREAU OF EDUCATION.

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1906.

- †No. 1. Education bill of 1906 for England and Wales as it passed the House of Commons. Anna T. Smith.
- †No. 2. German views of American education, with particular reference to industrial development. William N. Hallmann.
- *No. 3. State school systems: Legislation and judicial decisions relating to public education, Oct. 1, 1906, to Oct. 1, 1908. Edward C. Elliott. 15 cts.

1907.

- †No. 1. The continuation school in the United States. Arthur J. Jones.
- †No. 2. Agricultural education, including nature study and school gardens. James R. Jewell.
- †No. 3. The auxiliary schools of Germany. Six lectures by B. Maennel.
- No. 4. The elimination of pupils from school. Edward L. Thorndike.

1908.

- †No. 1. On the training of persons to teach agriculture in the public schools. Liberty H. Bailey.
- †No. 2. List of publications of the United States Bureau of Education, 1867-1907.
- †No. 3. Bibliography of education for 1907. James Ingersoll Wyer, jr., and Martha L. Phelps.
- †No. 4. Music education in the United States; schools and departments of music. Arthur L. Manchester.
- *No. 5. Education in Formosa. Julian H. Arnold. 10 cts.
- *No. 6. The apprenticeship system in its relation to industrial education. Carroll D. Wright. 15 cts.
- †No. 7. State school systems: II. Legislation and judicial decisions relating to public education, Oct. 1, 1906, to Oct. 1, 1908. Edward C. Elliott.
- †No. 8. Statistics of State universities and other institutions of higher education partially supported by the State 1907-8.

1909.

- *No. 1. Facilities for study and research in the offices of the United States Government in Washington. Arthur T. Hadley. 10 cts.
- *No. 2. Admission of Chinese students to American colleges. John Fryer. 25 cts.
- *No. 3. Daily meals of school children. Caroline L. Hunt. 10 cts.
- †No. 4. The teaching staff of secondary schools in the United States; amount of education, length of experience, salaries. Edward L. Thorndike.
- No. 5. Statistics of public, society, and school libraries in 1908.
- *No. 6. Instruction in the fine and manual arts in the United States. A statistical monograph. Henry T. Bailey. 15 cts.
- No. 7. Index to the Reports of the Commissioner of Education, 1867-1907.
- *No. 8. A teacher's professional library. Classified list of 100 titles. 5 cts.
- *No. 9. Bibliography of education for 1908-9. 10 cts.
- No. 10. Education for efficiency in railroad service. J. Shirley Eaton.
- *No. 11. Statistics of State universities and other institutions of higher education partially supported by the State, 1908-9. 5 cts.

1910.

- *No. 1. The movement for reform in the teaching of religion in the public schools of Saxony. Arley B. Shaw. 5 cts.
- No. 2. State school systems: III. Legislation and judicial decisions relating to public education, Oct. 1, 1908, to Oct. 1, 1909. Edward C. Elliott.
- †No. 3. List of publications of the United States Bureau of Education, 1867-1910.
- †No. 4. The biological stations of Europe. Charles A. Kofoid.
- *No. 5. American schoolhouses. Fletcher B. Dresslar. 75 cts.
- †No. 6. Statistics of State universities and other institutions of higher education partially supported by the State, 1909-10.

1911.

- *No. 1. Bibliography of science teaching. 5 cts.
- *No. 2. Opportunities for graduate study in agriculture in the United States. A. C. Monahan. 5 cts.
- *No. 3. Agencies for the improvement of teachers in service. William C. Ruediger. 15 cts.
- *No. 4. Report of the commission appointed to study the system of education in the public schools of Baltimore. 10 cts.
- *No. 5. Age and grade census of schools and colleges. George D. Strayer. 10 cts.
- *No. 6. Graduate work in mathematics in universities and in other institutions of like grade in the United States. 5 cts.
- †No. 7. Undergraduate work in mathematics in colleges and universities.
- †No. 8. Examinations in mathematics, other than those set by the teacher for his own classes.
- No. 9. Mathematics in the technological schools of collegiate grade in the United States.
- †No. 10. Bibliography of education for 1909-10.
- †No. 11. Bibliography of child study for the years 1908-9.
- †No. 12. Training of teachers of elementary and secondary mathematics.
- *No. 13. Mathematics in the elementary schools of the United States. 15 cts.
- *No. 14. Provision for exceptional children in the public schools. J. H. Van Sickle, Lightner Witmer, and Leonard P. Ayres. 10 cts.
- *No. 15. Educational system of China as recently reconstructed. Harry E. King. 10 cts.
- †No. 16. Mathematics in the public and private secondary schools of the United States.
- †No. 17. List of publications of the United States Bureau of Education, October, 1911.
- †No. 18. Teachers' certificates issued under general State laws and regulations. H. Updegraff.
- No. 19. Statistics of State universities and other institutions of higher education partially supported by the State, 1910-11.

1912.

- *No. 1. A course of study for the preparation of rural-school teachers. F. Mutchler and W. J. Craig. 5 cts.
- †No. 2. Mathematics at West Point and Annapolis.
- *No. 3. Report of committee on uniform records and reports. 5 cts.
- *No. 4. Mathematics in technical secondary schools in the United States. 5 cts.
- *No. 5. A study of expenses of city school systems. Harlan Updegraff. 10 cts.
- *No. 6. Agricultural education in secondary schools. 10 cts.
- *No. 7. Educational status of nursing. M. Adelaide Nutting. 10 cts.
- *No. 8. Peace day. Fannie Fern Andrews. 5 cts. [Later publication, 1913, No. 12, 10 cts.]
- *No. 9. Country schools for city boys. William S. Myers. 10 cts.
- †No. 10. Bibliography of education in agriculture and home economics.
- †No. 11. Current educational topics, No. I.
- †No. 12. Dutch schools of New Netherland and colonial New York. William H. Kilpatrick.
- †No. 13. Influences tending to improve the work of the teacher of mathematics. 5 cts.
- *No. 14. Report of the American commissioners of the international commission on the teaching of mathematics. 10 cts.
- †No. 15. Current educational topics, No. II.
- †No. 16. The reorganized school playground. Henry S. Curtis.
- *No. 17. The Montessori system of education. Anna T. Smith. 5 cts.
- *No. 18. Teaching language through agriculture and domestic science. M. A. Leiper. 5 cts.
- *No. 19. Professional distribution of college and university graduates. Bailey B. Burritt. 10 cts.
- †No. 20. Readjustment of a rural high school to the needs of the community. H. A. Brown.
- †No. 21. Urban and rural common-school statistics. Harlan Updegraff and William R. Hood.
- No. 22. Public and private high schools.
- *No. 23. Special collections in libraries in the United States. W. D. Johnston and I. G. Mudge. 10 cts.
- †No. 24. Current educational topics, No. III.
- †No. 25. List of publications of the United States Bureau of Education, 1912.
- †No. 26. Bibliography of child study for the years 1910-11.
- No. 27. History of public-school education in Arkansas. Stephen B. Weeks.
- *No. 28. Cultivating school grounds in Wake County, N. C. Zebulon Judd. 5 cts.
- No. 29. Bibliography of the teaching of mathematics, 1900-1912. D. E. Smith and Chas. Goldsaber.
- No. 30. Latin-American universities and special schools. Edgar E. Brandon.
- †No. 31. Educational directory, 1912.
- †No. 32. Bibliography of exceptional children and their education. Arthur MacDonald.
- †No. 33. Statistics of State universities and other institutions of higher education partially supported by the State, 1912.

1913.

- No. 1. Monthly record of current educational publications, January, 1913.
- *No. 2. Training courses for rural teachers. A. C. Monahan and R. H. Wright. 5 cts.
- *No. 3. The teaching of modern languages in the United States. Charles H. Handschin. 15 cts.
- *No. 4. Present standards of higher education in the United States. George E. MacLean. 20 cts.
- †No. 5. Monthly record of current educational publications. February, 1913.

- *No. 6. Agricultural instruction in high schools. C. H. Robison and F. B. Jenks. 10 cts.
- *No. 7. College entrance requirements. Clarence D. Kingsley. 15 cts.
- *No. 8. The status of rural education in the United States. A. C. Monahan. 15 cts.
- †No. 9. Consular reports on continuation schools in Prussia.
- †No. 10. Monthly record of current educational publications, March, 1913.
- †No. 11. Monthly record of current educational publications, April, 1913.
- *No. 12. The promotion of peace. Fannie Fern Andrews. 10 cts.
- *No. 13. Standards and tests for measuring the efficiency of schools or systems of schools. 5 cts.
- †No. 14. Agricultural instruction in secondary schools.
- †No. 15. Monthly record of current educational publications, May, 1913.
- *No. 16. Bibliography of medical inspection and health supervision. 15 cts.
- †No. 17. A trade school for girls. A preliminary investigation in a typical manufacturing city, Worcester, Mass.
- *No. 18. The fifteenth international congress on hygiene and demography. Fletcher B. Dresslar. 10 cts.
- *No. 19. German industrial education and its lessons for the United States. Holmes Beckwith. 15 cts.
- *No. 20. Illiteracy in the United States. 10 cts.
- †No. 21. Monthly record of current educational publications, June, 1913.
- *No. 22. Bibliography of industrial, vocational, and trade education. 10 cts.
- *No. 23. The Georgia club at the State Normal School, Athens, Ga., for the study of rural sociology. E. C. Branson. 10 cts.
- *No. 24. A comparison of public education in Germany and in the United States. Georg Karschensteiner. 5 cts.
- *No. 25. Industrial education in Columbus, Ga. Roland B. Daniel. 5 cts.
- †No. 26. Good roads arbor day. Susan B. Sipe.
- †No. 27. Prison schools. A. C. Hill.
- *No. 28. Expressions on education by American statesmen and publicists. 5 cts.
- *No. 29. Accredited secondary schools in the United States. Kendrick C. Babcock. 10 cts.
- *No. 30. Education in the South. 10 cts.
- *No. 31. Special features in city school systems. 10 cts.
- No. 32. Educational survey of Montgomery County, Md.
- †No. 33. Monthly record of current educational publications, September, 1913.
- *No. 34. Pension systems in Great Britain. Raymond W. Sles. 10 cts.
- *No. 35. A list of books suited to a high-school library. 15 cts.
- *No. 36. Report on the work of the Bureau of Education for the natives of Alaska, 1911-12. 10 cts.
- No. 37. Monthly record of current educational publications, October, 1913.
- *No. 38. Economy of time in education. 10 cts.
- No. 39. Elementary industrial school of Cleveland, Ohio. W. N. Hallmann.
- *No. 40. The reorganized school playground. Henry S. Curtis. 10 cts.
- *No. 41. The reorganization of secondary education. 10 cts.
- No. 42. An experimental rural school at Winthrop College. H. S. Browne.
- *No. 43. Agriculture and rural-life day; material for its observance. Eugene C. Brooks. 10 cts.
- *No. 44. Organized health work in schools. E. B. Hoag. 10 cts.
- No. 45. Monthly record of current educational publications, November, 1913.
- *No. 46. Educational directory, 1913. 15 cts.
- *No. 47. Teaching material in Government publications. F. K. Noyes. 10 cts.
- *No. 48. School hygiene. W. Carson Ryan, Jr. 15 cts.
- No. 49. The Farragut School, a Tennessee country-life high school. A. C. Monahan and Adams Phillips.
- *No. 50. The Fitchburg plan of cooperative industrial education. M. R. McCann. 10 cts.
- *No. 51. Education of the immigrant. 10 cts.
- *No. 52. Sanitary schoolhouses. Legal requirements in Indiana and Ohio. 5 cts.
- No. 53. Monthly record of current educational publications, December, 1913.
- No. 54. Consular reports on industrial education in Germany.
- No. 55. Legislation and judicial decisions relating to education, Oct. 1, 1909, to Oct. 1, 1912. James C. Boykin and William R. Hood.
- †No. 56. Some suggestive features of the Swiss school system. William Knox Tate.
- †No. 57. Elementary education in England, with special reference to London, Liverpool, and Manchester. I. L. Kandel.
- No. 58. Educational system of rural Denmark. Harold W. Foght.
- No. 59. Bibliography of education for 1910-11.
- No. 60. Statistics of State universities and other institutions of higher education partially supported by the State, 1912-13.

1914.

- *No. 1. Monthly record of current educational publications, January, 1914. 5 cts.
- No. 2. Compulsory school attendance.
- *No. 3. Monthly record of current educational publications, February, 1914. 5 cts.
- No. 4. The school and the start in life. Meyer Bloomfield.

- No. 5. The folk high schools of Denmark. L. L. Friend.
 No. 6. Kindergartens in the United States.
 No. 7. Monthly record of current educational publications, March, 1914.
 No. 8. The Massachusetts home-project plan of vocational agricultural education. R. W. Stimson.
 No. 9. Monthly record of current educational publications, April, 1914.
 *No. 10. Physical growth and school progress. B. T. Baldwin. 25 cts.
 *No. 11. Monthly record of current educational publications, May, 1914. 5 cts.
 *No. 12. Rural schoolhouses and grounds. F. B. Dresslar. 50 cts.
 No. 13. Present status of drawing and art in the elementary and secondary schools of the United States.
 Royal B. Farnum.
 No. 14. Vocational guidance.
 No. 15. Monthly record of current educational publications. Index.
 No. 16. The tangible rewards of teaching. James C. Boykin and Roberta King.
 No. 17. Sanitary survey of the schools of Orange County, Va. Roy K. Flannagan.
 No. 18. The public-school system of Gary, Ind. William P. Burris.
 No. 19. University extension in the United States. Louis E. Reber.
 No. 20. The rural school and hookworm disease. J. A. Ferrell.
 No. 21. Monthly record of current educational publications, September, 1914.
 No. 22. The Danish folk high schools. H. W. Foght.
 No. 23. Some trade schools in Europe. Frank L. Glynn.
 No. 24. Danish elementary rural schools. H. W. Foght.
 No. 25. Important features in rural school improvement. W. T. Hodges.
 No. 26. Monthly record of current educational publications, October, 1914.
 *No. 27. Agricultural teaching. 15 cts.
 No. 28. The Montessori method and the kindergarten. Elizabeth Harrison.
 No. 29. The kindergarten in benevolent institutions.
 No. 30. Consolidation of rural schools and transportation of pupils at public expense. A. C. Monahan.
 No. 31. Report on the work of the Bureau of Education for the natives of Alaska.
 No. 32. Bibliography of the relation of secondary schools to higher education. R. I. Walkley.
 No. 33. Music in the public schools. Will Earhart.
 No. 34. Library instruction in universities, colleges, and normal schools. Henry R. Evans.
 No. 35. The training of teachers in England, Scotland, and Germany. Charles H. Judd.
 *No. 36. Education for the home—Part I. General statement. B. R. Andrews. 10 cts.
 No. 37. Education for the home—Part II. State legislation, schools, agencies. B. R. Andrews.
 No. 38. Education for the home—Part III. Colleges and universities. B. R. Andrews.
 No. 39. Education for the home—Part IV. Bibliography, list of schools. B. R. Andrews.
 No. 40. Care of the health of boys in Girard College, Philadelphia, Pa.
 No. 41. Monthly record of current educational publications, November, 1914.
 No. 42. Monthly record of current educational publications, December, 1914.
 No. 43. Educational directory, 1914-15.
 No. 44. County-unit organization for the administration of rural schools. A. C. Monahan.
 No. 45. Curricula in mathematics. J. C. Brown.
 No. 46. School savings banks. Mrs. Sara L. Oberholtzer.
 No. 47. City training schools for teachers. Frank A. Manny.
 No. 48. The educational museum of the St. Louis public schools. C. G. Rathman.
 No. 49. Efficiency and preparation of rural school-teachers. H. W. Foght.
 No. 50. Statistics of State universities and State colleges.

1915.

- No. 1. Cooking in the vocational school. Iris P. O'Leary.
 No. 2. Monthly record of current educational publications, January, 1915.
 No. 3. Monthly record of current educational publications, February, 1915.
 No. 4. The health of school children. W. H. Heck.
 No. 5. Organization of State departments of education. A. C. Monahan.
 No. 6. A study of colleges and high schools.
 No. 7. Accredited secondary schools in the United States. Samuel P. Capen.
 No. 8. Present status of the honor system in colleges and universities. Bird T. Baldwin.
 No. 9. Monthly record of current educational publications, March, 1915.
 No. 10. Monthly record of current educational publications, April, 1915.
 No. 11. A statistical study of the public-school systems of the southern Appalachian Mountains. Norman Frost.
 No. 12. History of public-school education in Alabama. Stephen B. Weeks.





111.3
UNITED STATES BUREAU OF EDUCATION

BULLETIN, 1915, NO. 14

WHOLE NUMBER 639

MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS

COMPILED BY THE LIBRARY DIVISION OF THE
BUREAU OF EDUCATION, UNDER THE DIREC-
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MAY, 1915



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MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS.

CONTENTS.—Introductory notes—Publications of associations—Educational history—Current educational conditions—Pedagogics and didactics—Educational psychology; Child study—Special methods of instruction—Special subjects of curriculum—Rural education—Secondary education—Teachers: Training and professional status—Higher education—School administration—School management—School architecture—School hygiene and sanitation—Physical training—Social aspects of education—Child welfare—Religious education—Manual and vocational training—Vocational guidance—Agricultural education—Home economics—Commercial education—Professional education—Military training—Education of women—Negroes and Indians—Orientals—Defective and delinquent children—Libraries and reading—Bureau of Education: Recent publications—Bulletin of the Bureau of Education.

INTRODUCTORY NOTES.

The following are especially noteworthy books and pamphlets of the current month, the numbers in parentheses referring to the full entries in this record: Nearing, *The new education* (529); Klapper, *Teaching of English* (570); Carver, *Organization of a rural community* (582); Alderman, *School credit for home work* (615); Perry, *Discipline as a school problem* (618); Beard, *Woman's work in municipalities* (625); Cooley, *Vocational education in Europe* (640); Eaton and Stevens, *Commercial work and training for girls* (659); Redlich, *The case method in American law schools* (662); Schaeffer and Finley, *Should our educational system include activities whose special purpose is preparation for war?* (664); Kuo, *The Chinese system of public education* (669).

Only publications of the Bureau of Education are available for free distribution by this office. All others here listed may ordinarily be obtained from their respective publishers, either directly or through a dealer; or, in the case of an association publication, from the secretary of the issuing organization.

Books, pamphlets, etc., intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

PUBLICATIONS OF ASSOCIATIONS.

513. California high school teachers' association. *Proceedings of annual meeting . . . Held at Berkeley, Cal., June 29 to July 3, 1914.* 109 p. 8°. (E. E. Washburn, secretary, Oakland, Cal.)

Contains: 1. G. A. Merrill: *The province of the intermediate school, the province of the high school, and where to draw the line between them*, p. 9-16. 2. W. C. Wood: *The course of study in the intermediate school*, p. 17-33; *Discussion*, p. 33-37. 3. Mary S. Woolman: *Household arts and home life—the rural school problem*, p. 47-60. 4. H. O. Williams: *Vocational guidance*, p. 64-62. 5. H. R. Fairclough: *The practical bearing of high school Latin*, p. 74-84. 6. Elizabeth S. Madison: *The high school library*, p. 83-84.

514. **Louisiana school board association.** Proceedings. Tenth annual meeting of the Louisiana school board association and twenty-ninth annual conference of the Parish superintendents, held at Baton Rouge, La., January 25-26, 1915. Baton Rouge, Ramires-Jones print, 1915. 42 p. 8°.
- Contains: 1. C. J. Brown: *Synopses of talk on the school plant*, p. 17-18. 2. J. W. Bateman: *What industrial work should be done in schools of three, four, and five teachers*, p. 19-23. 3. L. J. Alleman: *Attendance—how to improve it*, p. 29-34.
515. **Michigan schoolmasters' club.** Journal . . . forty-ninth meeting, held in Ann Arbor, April 1-3, 1914. Ann Arbor, Mich., Pub. by the Club. 132 p. 8°. (L. P. Jocelyn, secretary, Ann Arbor, Mich.)
- Contains: 1. C. O. Davis: *The reconstructed high school*, p. 2-8. 2. Augusta Meiser: *How can we make the study of German more vital?* p. 25-30. 3. Pauline Harris: *Can thorough preparation result from modern educational tendencies?* p. 30-35. 4. Agnes Hunt: *Correlation of chemistry and domestic science in both high school and college instruction*, p. 53-56. 5. W. S. Hall: *Instruction regarding the sex life*, p. 64-74. 6. R. W. Davis: *Manual training from the manufacturer's viewpoint*, p. 79-83. 7. E. C. Warriner: *The function of manual training in the high school*, p. 83-88. 8. C. S. Berry: *Value of psychological tests in determining life vocation*, p. 89-96.
516. **Modern language association of America.** Proceedings of the thirty-second annual meeting . . . New York, N. Y., and the twentieth annual meeting of the Central division of the Association, Minneapolis, Minn., December 29-31, 1914. Publications of the Modern language association of America, 30: i-lxxxix, March 1915.
- Contains: 1. F. E. Schelling: *The American professor*, p. liv-lxxviii. 2. Julius Goebel: *The new problems of American scholarship*, p. lxxiv-lxxxiv.
517. **Music teachers' national association.** Studies in musical education, history, and aesthetics. Ninth series. Papers and proceedings . . . at its thirty-sixth annual meeting, Pittsburgh, Pa., December 29-30, 1914. Hartford, Conn., The Association, 1915. 234 p. 8°. (J. L. Erb, secretary, Chicago, Ill.)
- Contains: 1. P. A. Scholes: *Musical education in the British Isles*, p. 30-40. 2. Will Earhart: *High school orchestras as a stimulus to instrumental study*, p. 148-56. 3. W. S. Pratt: *The problems of standardization*, p. 158-74.
518. **New York (State) University.** Proceedings of the fiftieth convocation, Albany, New York, October 22-23, 1914. The University of the State of New York, 1915. 207 p. 8°.
- Contains: 1. G. H. Palmer: *Trades and professions*, p. 13-29; *Discussion*, p. 29-43. 2. F. J. E. Woodbridge: *The university and the public*, p. 44-59. 3. Herbert Quirk: *The rural school*, p. 61-74. 4. Robert Brodie: *Improvement of rural schools*, p. 79-89. 5. H. M. Biggs: *Medical inspection*, p. 93-99. 6. O. E. Hall: *Consolidation of districts*, p. 100-16. 7. C. W. Kent: *Educational efficiency versus educational display*, p. 117-42; *Discussion*, p. 142-54. 8. R. E. Thompson: *What the school should do for the state*, p. 185-205.
519. **Pennsylvania educational association.** Directors' department. Proceedings of the twentieth annual session at Harrisburg, February 4-5, 1915. Pennsylvania school journal, 63: 379-420, March 1915.
- Contains: 1. C. S. Foss: *What's the matter with the public schools?* p. 381-84; *Discussion*, p. 384-86. 2. H. A. Boyer: *Administration of school affairs*, p. 387-89. 3. Charles Albert: *Our needs in rural education*, p. 389-92. 4. M. G. Brumbaugh: *[Duties of the school director]* p. 392-93. 5. M. Virginia Black: *[Teachers and the school directors]* p. 394-96. 6. J. P. McCasky: *The school director in the school work*, p. 397-403.
520. **Southeast Missouri teachers' association.** Thirty-ninth annual meeting . . . Proceedings and addresses, Cape Girardeau, Mo., October 29-31, 1914. 73 p. 8°. (A. C. Magill, secretary, Cape Girardeau, Mo.)
- Contains: 1. Eugene Davenport: *The community and its school*, p. 22-28. 2. W. P. Evans: *Rural social centers*, p. 29-33. 3. Clara E. Graham: *Aesthetics in education, or, Child development along lines of the beautiful*, p. 41-51. 4. W. L. Johns: *The social life of the high school student*, p. 51-56. 5. W. D. Grove: *The rural school of to-morrow*, p. 56-61. 6. Jean Caldwell: *The teaching of reading in the sixth grade*, p. 61-63.

- 521. Wisconsin teachers' association.** Proceedings of the sixty-second annual session . . . held at Milwaukee, November 5-7, 1914. Madison, Wis., Democrat printing company, 1915. 300 p. 8°. (M. A. Bussewitz, secretary, Milwaukee, Wis.)

Contains: 1. C. D. Kingsley: The purpose and scope of the work of the high school, p. 23-30. 2. C. G. Pearce: How can we make the school meet the needs of life, p. 30-38. 3. C. R. Van Hise: The training of teachers for the high schools by the university, p. 43-48. 4. G. L. Bowman: The training of teachers by county training schools, p. 61-65. 5. C. J. Brewer: Training teachers in high schools, p. 66-72. 6. Theodore Kronsage: Training teachers for the elementary grades p. 72-79; Discussion, p. 80-86. 7. D. N. Snedden: Organization of the state's instrumentalities for vocational training, p. 87-88. 8. Mary D. Bradford: Motives for professional interest and growth, p. 89-95. 9. L. D. Harvey: Handwork in the elementary school, p. 104-12. 10. M. V. O'Shea: Shall the sexes be taught separately? p. 118-23; Discussion, p. 124-27. 11. Nina C. Vandewalker: Kindergarten problems in Wisconsin, p. 136-44. 12. W. F. Roecker: An elementary course in general science; content and method, p. 164-77. 13. May Bumby: Relating the work of English in the grades to that in the high school through the medium of a supervisor, p. 196-203. 14. Elizabeth B. Kelly: Home economics in the rural school, p. 222-27. 15. F. M. Karnes: To what extent is it desirable to vocationalize manual arts in the public schools? p. 232-39. 16. W. O. Messner: Modern pedagogy applied to music teaching, p. 248-59. 17. Lillian Watts: Music credits for high schools, p. 259-62. 18. G. A. Chamberlain: The value of competitive athletics for high school boys from the viewpoint of the educator, p. 264-73. 19. F. A. Kuhlman: The importance and methods of determining the mental age of subnormal children, p. 286-96.

EDUCATIONAL HISTORY.

- 522. De Montmorency, J. E. G.** English education in the eleventh and twelfth centuries. *Journal of education* (London) 47: 186-89, March 1, 1915. (Supplement.)

Interesting historical résumé. Says that the most important result of the entire movement and reaction between England and Europe was the grouping of scholars and teachers at Oxford in the days of Henry Beaulere.

- 523. Florian, Pierre.** Les méthodes expérimentales et la transformation des méthodes pédagogiques en Angleterre au dix-huitième siècle. *Éducation*, 6: 438-53, December 1914.

- 524. Knight, Edgar Wallace.** The Peabody fund and its early operation in North Carolina. [Durham? N. C., 1915] 15 p. 8°.

Reprinted from the *South Atlantic quarterly* for April 1915, vol. XIV, no. 2.

- 525. Shahan, Thomas J.** Fifty years of Catholic education. *Catholic world*, 101: 21-30, April 1915.

Says that the significance of the Catholic school "lies rather in its distinctive purpose, which is the combination of religious and moral training with intellectual culture."

CURRENT EDUCATIONAL CONDITIONS.

- 526. [Directory of educational associations of Great Britain and Ireland.]** *Journal of education* (London) 47: 179-86, March 1, 1915.

Gives membership total; yearly subscription; name of society's official organ; telegraphic address; date and place of next annual meeting; secretary's name and office address.

- 527. Georgia. Department of education.** Educational survey of Clayton and Taliaferro counties, Georgia. By M. L. Duggan, rural school agent. [Atlanta?] 1915. 23 p. illus. 8°.

Numbers 2 and 3 in a series of educational surveys of the counties of Georgia.

- 528. The moonlight schools.** The campaign against illiteracy. *Training school quarterly*, 1: 204-12, January-March 1915.

Contains accounts of moonlight schools in Kentucky and North Carolina.

- 529. Nearing, Scott.** The new education; a review of progressive educational movements of the day. Chicago, New York, Row, Peterson & company [1915] 264 p. 12°.

"A record of the impressions made on a traveler by a number of school systems and schools."

530. Norris, Walter B. The educational developments of the navy. *Education*, 35: 503-10, April 1915.

An interesting account of educational activities in the U. S. navy, which include for the year ending June 30, 1913, the direct instruction of 26,000 men. Trade schools have been carried on principally to supply skilled mechanics on shipboard, but they have also been the means in many cases of fitting men to earn good wages after they have served their enlistments and returned to civil life.

531. Ogden, Utah. Public school survey commission. Report. Pub. by the State department of education by permission of the Ogden city school board. [Salt Lake City? 1915] 42 p. 8°.

Commission composed of W. S. Deffenbaugh, E. J. Ward, C. S. Meek, W. G. Roylance, and G. A. Eaton.

532. Uruguay. Dirección general de instrucción primaria. La instrucción pública primaria en la república oriental del Uruguay. Noticia escrita para la Exposición internacional de San Francisco de 1915. Montevideo, Talleres gráficos A Barreiro y Ramos, 1914. 83, 79 p. 52 pl. 8°.

English version, 79 p. at end, has special title page.

533. Virginia. Department of public instruction. Illiteracy in Virginia. Some facts which cannot be overlooked. Prepared by E. R. Chesterman, secretary of the State board of education. Richmond, D. Bottom, superintendent public printing, 1914. 21 p. illus. 8°.

"An effort to abolish illiteracy in Richmond, by Dr. J. A. C. Chandler": p. 16-21.

534. Weld, Louis Dwight Harvell. Social and economic survey of a community in the Red River valley. Minneapolis, University of Minnesota, 1915. 86 p. illus. 4°. (The University of Minnesota. Current problems, no. 4.)

PEDAGOGICS AND DIDACTICS.

535. Bowden, Witt. Education for power and responsibility. *Educational review*, 49: 352-66, April 1915.

Cooperation of school with home. Cultivation of independent individuality in students as the basis of a genuine democracy.

536. Cellérier, L. Deux mentalités, deux éducations. *Éducation*, 6: 407-15, December 1914.

The author finds German mentality analytic and realistic; French mentality synthetic and idealistic. He considers that German pedagogy, during the last few decades, has confined itself more to the contemplation of the real—the psychological and physical nature of the child; while the attention of all pedagogical circles in France has been concentrated more and more upon the problem of moral education.

537. Classen, Walther F. Zucht und freiheit; ein wegweiser für die deutsche jugendpflege. München, C. H. Beck'sche verlagsbh. O. Beck, 1914. xiii, 220 p. 12°.

538. Courtis, S. A. Objective standards as a means of controlling instruction and economizing time. *School and society*, 1: 433-36, March 27, 1915.

Address delivered before the National society for the study of education, Cincinnati meeting, February 22, 1915.

539. Duhem, Pierre. Quelques réflexions sur la science allemande. *Révue des deux mondes*, 95: 657-86, February 1, 1915.

Says that "French and German science are both remote from the ideal of a perfect science, but they recede from it in opposite directions, the one possessing to excess that with which the other is poorly provided; there, in German science, the geometric spirit reduces the spirit of finesse almost to the extent of suffocating it; here, in French science, the spirit of finesse overpasses too readily the geometric spirit."

540. Farrand, Wilson. The public school and the college. *School and society*, 1: 505-10, April 10, 1915.

The writer says that the public school and the college have different aims, problems, and ideals. He gives the problems of each and says that neither should act independently, or endeavor blindly to force the other. The college must study the purposes and limitations of the public school and the school must recognize the ideals and the problems of the college.

541. Fischer, Aloys. Die neue jugendbewegung. Zeitschrift für pädagogische psychologie und experimentelle pädagogik, 16: 22-37, 74-84, January, February-March 1915.
 Cf. Edwin G. Cooley's article "Welfare of working youth in Germany" (item 642) on the new "jugendpflege." Professor Fischer, on the other hand, presents an analysis of the "jugendbewegung," a "pedocentric" movement tending toward the creation of an autonomous "jugendkultur," proclaimed by Gustav Adolf Wyneken. Professor Fischer's pedagogical ideals approximate those expressed by John Dewey in the New republic, 2: 283-84, April 17, 1915.
542. Hendy, J. E. The *quid pro quo* in education. Journal of education (London) 47: 153-55, March 1, 1915.
 An estimate of the results of education in England.
543. Manny, Frank A. Initiative in education. Education, 35: 489-91, April 1915.
 A pupil can not be said to be trained for initiative until "he is able to take responsibility alone or with others (1) for the materials involved, (2) for the methods called for, and (3) for the results that ensue." Methods in France and America contrasted.
544. Marrinan, J. J. The education of youth for democracy. Educational review, 49: 379-90, April 1915.
 Concedes that elementary education should be essentially individualistic. Says: "The irrepressible egoism of the pre-adolescent child is no mere caprice of nature." Modern education of youth demands as a result economic independence, spiritual strength, and altruism.
545. Reinke, H. Der deutsche jughelferbund. Lyzeum, 2: 20-30, October 1914.
 An account of the origin, goal, procedure, and significance of the German analogue of Barnardo's "Young helpers' league," in direct imitation of which the German organization was formed.
546. Sibley, C. Lintern. Britain's intellectual empire. Canadian magazine, 44: 480-86, April 1915.
 Achievements in science and philosophy accomplished by Englishmen.
547. Some opinions on German culture and education. Modern language teaching, 11: 52-53, March 1915.
 Contrasts English and German methods—the English being individualists; the Germans, collectivists.
548. Winship, A. E. Standardization—wise and otherwise. Journal of education, 81: 311-15, March 25, 1915.
 Address before the Department of superintendence, National education association.

EDUCATIONAL PSYCHOLOGY; CHILD STUDY.

549. Baldwin, Bird T. The application of the Courtis tests in arithmetic to college students. School and society, 1: 569-76, April 17, 1915.
550. Freeman, Frank N. An analytical scale for judging handwriting. Elementary school journal, 15: 432-41, April 1915.
 Criticizes the Thorndike and Ayres scales because of lack of uniformity in the results which are obtained from their use. Describes an analytical scale.
551. Ioteyko, I. La facultad internacional de paidología de Bruselas. Monitor de la educación común, 52: 68-77, January 1915.
 Discusses the place of pedology among the sciences and its value for education. The International faculty of pedology was instituted upon demand of the First International congress of pedology, at Brussels in 1911.
552. Kirchner, Ferdinand. Wahrscheinlichkeitsrechnung und konferenzbeschlüsse. Lyzeum, 2: 126-36, December 1914.
 A study concerning the objectivity of judgments upon pupils' conduct and attainments arrived at in faculty meetings. What is the influence of the following factors: Sex of the teacher, sex of the pupil, the subjects taught by the teacher? What is the mathematical probability of reaching an objective judgment?
553. Pyle, W. H. A psychological study of bright and dull pupils. Journal of educational psychology, 6: 151-56, March 1915.
 "A study of high school children by means of tests of logical memory, rote memory, word building, association test, and completion tests. The use of such tests may be of great help to teachers and principals in determining the mental ability of pupils."

554. **Starck, Daniel.** The measurement of efficiency in spelling, and the overlapping of grades in combined measurements of reading, writing, and spelling, *Journal of educational psychology*, 6: 167-86, March 1915.

"The author derives a method of measuring spelling ability, and presents the result of testing 1,214 pupils in five schools. On the basis of these results he presents norms of spelling ability for each grade."

555. **Wallin, J. E. Wallace.** The Binet-Simon tests in relation to the factors of experience and maturity. *Psychological clinic*, 8: 266-71, February 15, 1915.

556. **Wittner, Lightner.** Clinical records. *Psychological clinic*, 9: 1-17, March 15, 1915.

The records of 40 children, who had been brought to the Psychological clinic of the University of Pennsylvania, were analyzed to find out what information the records gave under each of three separate heads: General examination, Physical examination, and Mental tests.

557. **Yerkes, Robert M. and Anderson, Helen M.** The importance of social status as indicated by the results of the point-scale method of measuring mental capacity. *Journal of educational psychology*, 6: 137-50, March 1915.

"The authors find that differences in social status correlate with differences in mental capacity, and that the latter differences may amount to as much as 30 per cent. They emphasize the necessity of different norms for different social groups."

SPECIAL METHODS OF INSTRUCTION.

558. **Gerriah, Carolyn M.** The relation of moving pictures to English composition. *English journal*, 4: 226-30, April 1915.

A paper read before the New England association of teachers of English, December 5, 1914

"Moving pictures offer great opportunities: (1) as the source of material for the content of composition; (2) as a means of practice in the application of the principles and theories of composition; (3) as a medium for the mental training on which success in English composition depends."

559. **Hamilton, Maud.** An experiment in historical dramatization. *School review*, 23: 253-56, April 1915.

Work at the Wisconsin high school of the University of Wisconsin. Basis of the play was Bacon's Rebellion. Pronounces such dramatization as exceedingly beneficial for a seventh- or eighth-grade class. Gives skeleton of acts and characters of the play, which was called "A rebel of olde Virginia."

560. **Newton, Peter.** The toy theatre: a children's playhouse where fairy tales come true. *Craftsman*, 28: 36-41, April 1915.

An illustrated article on the new playhouse for children, to be built in New York city. Designed to provide dramatic entertainment for children, with their ideals and aspirations and their point of view in mind.

SPECIAL SUBJECTS OF CURRICULUM.

561. **Allen, James T.** The first year of Greek. *Classical journal*, 10: 262-66, March 1915.

Outlines briefly a course for beginners in Greek. Advocates the benefits of memorizing passages from the Greek writers.

562. **Axtell, Ulysses F.** The teaching of literature. *School bulletin*, 41: 165-57, April 1915.

To be continued.

Gives an outline to assist the teacher to analyze a literary selection by way of preparing to teach.

563. **Chadwick, B. D.** Vitalizing the history work. *History teacher's magazine*, 6: 112-19, April 1915.

Tells of the vitalizing of history work in the Emerson school, Gary, Indiana, by history games, the student council, etc. Gives the equipment of the history laboratory.

564. **Crawford, Mary.** The laboratory equipment of the teacher of English. *English journal*, 4: 145-51, March 1915.

Gives suggestions regarding the following aids for teaching English: Maps, plans, and charts; Reference books and pedagogical helps; Lantern slides, Stereograph; Prints and postcards; Pictures and busts; and the Phonograph.

565. **Gaston, Charles B.** The notebook as an aid to efficiency in English classes. *English journal*, 4: 215-25, April 1915.
Discusses the subject under the following headings: Form of notebooks; Contents of notebooks; Inspection of notebooks; and Publication of notebooks.
566. **Harris, Henry J.** The occupation of musician in the United States. *Musical quarterly*, 1: 299-311, April 1915.
Gives statistics taken from the Census report of 1910, showing the number of teachers of music in the United States, their sex, age, nativity, etc.
567. **Houston, G. David.** Formal English grammar; its uses and abuses. *Education*, 35: 477-88, April 1915.
Writer says that "the gravest abuse, perhaps, of formal English grammar is the attempt to teach the subject without the assistance of the pupil's own composition." Deprecates the mere acquisition of grammar, even with stereotyped examples appended. It must be studied in and through the formation of sentences composed by the pupil himself. Thinks that oral composition is of much greater importance than written composition, because an individual "talks much more often than he writes."
568. **Kelsey, Francis W.** The twentieth Michigan classical conference. *School review*, 23: 249-52, April 1915.
569. **Keyser, Cassius J.** Graduate mathematical instruction for graduate students not intending to become mathematicians. *Science*, 41: 443-55, March 26, 1915.
In discussing the subject of calculus, the author says that it is now practicable to provide "a large and diversified body of genuinely graduate mathematical instruction for which the calculus is strictly not prerequisite."
570. **Klapper, Paul.** The teaching of English; teaching the art and the science of language. New York, D. Appleton and company, 1915. xii, 263 p. 12°.
571. **Lewis, G. W.** Modern methods of teaching primary reading. *Education*, 35: 516-21, April 1915.
Advocates the use of the phonic method. Enumerates the different methods (the Key, Bacon, Pollard, Ward, Gordon, and Lewis methods), and shows their possibilities. Says that the Lewis or Story method has achieved marvelous results.
572. **Lodge, Gonzalez.** Oral Latin and its relation to the direct method. *Teachers college record*, 16: 18-28, March 1915.
573. **Newhall, Charles W.** "Recreations" in secondary mathematics. *School science and mathematics*, 15: 277-93, April 1915.
Bibliography: p. 291-93.
The subject is discussed under the following headings: The pedagogic value of recreations, History, Methods of using recreations, Definition of a mathematical recreation, Possible material, Recreations with numbers, Recreations in elementary algebra, Recreations in geometry, Conclusion.
574. **Opdycke, John B.** Editing to kill. *School review*, 23: 225-35, April 1915.
Says that classics for high schools need to be delivered from pedantry.
575. **Phipps, C. F.** Practical lessons in electricity for the sixth and seventh grades. *Elementary school journal*, 15: 407-20, April 1915.
Typical studies in electricity. A series of problems; which the pupils are led to solve, mainly by individual experimentation. Apparatus of the simple home-made type.
576. **Pohl, Frederick J.** English literature for sophomores. *English journal*, 4: 160-72, March 1915.
A paper read before the college section of the National council of teachers of English in Chicago, November 27, 1914.
577. **Sage, Evan T.** Latin in the freshman and sophomore years in college. *Classical journal*, 10: 252-61, March 1915.
Data showing the maximum of Latin that students will take or purely cultural purposes. Statistics collected from "a fair number of colleges from all parts of the country."
578. **Snedden, David.** Principles of aim, organization, and method in general science teaching. *School and society*, 1: 436-41, March 27, 1915.
Presented before the Science teachers' club, Teachers college, February 20, 1915.
General science or pupils from 12 to 16 years of age, in grades 7 to 10 inclusive.

579. **Trafton, Gilbert H. and Reynolds, Helen M.** Aims, methods, and course of study in nature-study in the elementary school of the Mankato, Minnesota, State normal school. *Nature-study review*, 11: 95-169, March 1915.
A full, detailed course on nature-study, outlining the work through all the grades as well as the advanced work.
580. **Turner, Nellie E.** Teaching to read. New York, Cincinnati [etc.] American book company [1915] viii, 520 p. 12°.
Presents a definite method of procedure for reading work above the primary grades.
581. **Van Tuyl, George H.** Business arithmetic versus algebra in the high school. *Mathematics teacher*, 7: 101-13, March 1915.
Discussion by W. S. Schlauch, p. 114-17.
The writer suggests that business arithmetic be made a required subject throughout the first year of the high school and that the study of algebra should begin in the second year of the course.

RURAL EDUCATION.

582. **Carver, Thomas Nixon.** The organization of a rural community. Washington, Government printing office, 1915. 58 p. 8°.
From Yearbook of Department of agriculture for 1914.
"Suggested readings for the various committees": p. 53-58.
583. **United States.** Department of agriculture. Educational needs of farm women . . . Washington, Government printing office, 1915. 88 p. 8°.
(U. S. Department of agriculture. Office of the Secretary. Report No. 105.)
Extracts from letters received from farm women in response to an inquiry "How the U. S. Department of agriculture can better meet the needs of farm housewives," with special reference to the provision of instruction and practical demonstrations in home economics under the act of May 8, 1914.

SECONDARY EDUCATION.

584. **Bardwell, Darwin L.** Phases of the work of a modern high school. *Educational review*, 49: 367-78, April 1915.
Describes experiments in student self-government, and sums up results; changes in curriculum; high school libraries; clubs and societies, etc.
585. **Heck, W. H.** The mission of universities and colleges in stimulating the development of an esprit de corps among high school students. *School and society*, 1: 541-46, April 17, 1915.
586. **Johnson, T. Edward.** Elimination in the high school. *American school-master*, 8: 121-25, March 1915.
Gives the causes of elimination in the high school, and says that better grade preparation is necessary, more individual attention is demanded, and the reorganization of our secondary schools in accordance with the "six and six" plan must be effected.
587. **Mitchell, H. Edwin.** Time-articulation between high school and college. *School review*, 23: 217-24, April 1915.
Presentation of facts concerning 1,400 graduates of secondary schools of the year 1908 who have since entered four higher state schools in Iowa and Kansas. Deductions drawn from study, with statistical data.
588. **Russell, William F.** Economy in secondary education through an adaptation of the cycle system. *High school quarterly*, 3: 180-88, April 1915.
Suggests that the cycle system used in Germany and France be adapted to our conditions to meet the needs of the 80 per cent of our secondary pupils who drop out of school.

TEACHERS: TRAINING AND PROFESSIONAL STATUS.

589. **Society of college teachers of education.** Minutes of the meeting of February 23, 1915, Cincinnati, Ohio. *School review*, 23: 257-61, April 1915.
590. **Carrington, W. T.** The study of education in a normal school. *School and society*, 1: 477-81, April 3, 1915.
Discussed under the following headings: A standard normal school; Work differentiated to meet local needs; The necessary equipment; Definition of normal school; Studies in education; and College academic.

591. **Fahey, Sara H.** The moral aspects of adding to the work of teachers. *American teacher*, 4: 50-53, April 1915.
 "Part of report of the Committee on school organization and management at a meeting of the Teachers' league of New York city, December 19, 1914."
 A protest against the proposed plan for compulsory, unpaid service of teachers in the vacation schools of New York city.
592. **Helm, M. C.** The teacher's cottage. *South Dakota educator*, 28: 16-18, April 1915.
593. **Kendall, Calvin N.** The training of teachers in service. *School and society*, 1: 510-15, April 10, 1915.
 Address by the Commissioner of education of the state of New Jersey before the Department of superintendence, National education association, at Cincinnati, February 24, 1915.
 Also in *School and home education*, 34: 294-99, April 1915.
594. **Pennybacker, Mrs. Percy V.** The need of teachers' homes. *Ladies' home journal*, 32: 25, February 1915.
 Followed on same page by "The school manse in reality," by Mrs. Mary I. Wood, describing progress made in its establishment in several states.
595. **Seerley, Homer H.** The study of education in the normal school and the university. The normal school point of view. *American school*, 1: 72-73, March 1915.
 Read before the educational council, National education association, at Cincinnati, February 23, 1915.
 "The advantages of studying education and getting training for teaching in a state normal school, set forth by the president of a great western normal school."
596. **Yocum, A. Duncan.** The compelling of efficiency through teacher training. *School and society*, 1: 469-77, April 3, 1915.
 The writer says that "in the higher training of teachers the one thing fundamentally essential to efficiency is that throughout the college course academic and professional training shall parallel each other, and be wholly committed to teachers" to whom education means the development of definite forms of efficiency.

HIGHER EDUCATION.

597. **Land grant college engineering association.** Proceedings of the third annual meeting . . . held at Washington, D. C., November 10-13, 1914. East Lansing, Mich. [1915?] 170 p. 8°. (G. W. Bissell, secretary, Lansing, Mich.)
 Contains: 1. Anson Marston: The ideals of mechanic arts at the land grant colleges, p. 9-14. 2. C. H. Benjamin: The functions of a university, p. 14-19; Discussion, p. 19-33. 3. P. P. Claxton: Cooperative extension work between the engineering and agricultural departments of the land grant colleges, p. 34-38. 4. J. A. Moyer: Organization for engineering extension work, p. 70-76. 5. K. G. Smith: Methods of instruction in engineering extension, p. 82-87. 6. C. S. Nichols: Engineering experiment stations and engineering experimentation work, p. 100-118. 7. Report of the executive committee on the definition of "mechanic arts," p. 123-36. 8. J. P. Jackson: Present situation of land grant colleges, p. 163-65.
598. **National association of state universities in the United States of America.** Transactions and proceedings . . . nineteenth annual meeting, Washington, D. C., November 9-10, 1914. Burlington, Vt., Free press printing company [1915] 330 p. 8°. (Guy P. Benton, secretary, Burlington, Vt.)
 Contains: 1. T. F. Kane: The National association of state universities, p. 26-47. 2. W. L. Bryan: Share of faculty in administration and government, p. 92-97; Discussion, p. 98-110. 3. H. B. Hutchins: The president's office. Center of university organization and activity, p. 116-29. 4. W. O. Thompson: University finances. Improvement in business administration, p. 138-55; Discussion, p. 155-58. 5. T. H. Macbride: Duplication in separate agricultural colleges and state universities, p. 163-82; Discussion, p. 182-85. 6. P. P. Claxton: College surveys, p. 186-206. 7. Brown Ayres: Educational surveys, p. 207-12; Discussion, p. 212-24. 8. E. B. Craighead: State control of all higher education, p. 227-35. 9. G. H. Denny: The place and function of a department, college, or school of commerce in the university system, p. 244-56; Discussion, p. 266-61. 10. A. R. Hill: Special provision for women students in state universities, p. 262-72. 11. G. E. Vincent: Special provision for freshmen in state universities, p. 272-84. 12. C. F. Strong: University press and publicity, p. 285-301. 13. C. W. Dabney: The municipal university, p. 302-18.

599. **Brown, Elmer Ellsworth.** Collegiate education as a national problem. *School and society*, 1: 397-400, March 20, 1915.
The writer says that "our main reliance for a comprehensive national program for our higher education must be the faculties of our colleges and universities. We certainly need such a national program, less fragmentary, more organic, more free from internal competition and contradiction, than that which we now have. It seems fair that we should look to the teaching bodies of our higher institutions of learning for the gradual working out of the main lines of such a program." Speaks of making each college faculty a class in pedagogy, and suggests certain topics that might enter into the first year of the course.
600. **Butler, Nicholas Murray.** Concerning some matters academic. *Educational review*, 49: 391-99, April 1915.
Says that students in American universities are in far too many instances overtaught and over-lectured. Duties and responsibilities of the university president.
601. **Cheyney, E. G.** College spirit and student control. *School and society*, 1: 552-56, April 17, 1915.
Defining college spirit as loyalty born of reverence, the author aims to show how this spirit may properly be fostered.
602. **Dabney, Charles William.** The municipal university. [Burlington, Vt., Free press printing company, 1915] 19 p. 8°.
Reprinted from the Proceedings of the National association of state universities, vol. 12, 1914, p. 302-18.
603. **Fess, S. D.** National university of the United States. *Journal of education*, 81: 342-44, April 1, 1915.
Favorable report of the House Committee on education on a National university.
604. **Lillie, Ralph S.** The universities and investigation. *Science*, n. s. 41: 553-66, April 16, 1915.
Says that the essential requirements of all original work are opportunity, freedom from needless distraction, and the necessary leisure. A plea for individuality and scholarship.
605. **Marcy, Leslie H.** The People's college. *International socialist review*, 15: 612-13, April 1915.
Work of the People's college at Fort Scott, Kansas.
606. **Fritchett, Henry S.** Should the Carnegie foundation be suppressed? *North American review*, 201: 554-66, April 1915.
Also reprinted in pamphlet form.
Considers some criticisms made against the Foundation, in the light of its purpose.

SCHOOL ADMINISTRATION.

607. **Bourne, Randolph S.** Communities for children. *New republic*, 2: 233-34, April 3, 1915.
Describes the vocational work at Gary, Ind. Additional articles in the series by Mr. Bourne on the Gary schools appear in the *New republic*, 2: 259-61, 302-3, 326-28, April 10, 24, May 1, 1915.
608. ———. Schools in Gary. *New republic*, 2: 198-99, March 27, 1915.
Says that the schools of Gary, Ind., are built up "outside the influence of the professors of education, the teachers' colleges, and the normal schools of the land."
609. **Chancellor, William E.** The selection of county school superintendents. *School and society*, 1: 444-50, March 27, 1915.
Paper read at the meeting of the Department of superintendence, National education association, Cincinnati, February 25, 1915.
610. **Davenport, F. I.** Reconstructing boards of education. *New republic*, 2: 229-30, April 3, 1915.
Describes conditions in New York city, with comments on the school boards of other cities in the United States.
611. **Dewey, John.** State or city control of schools? *New republic*, 2: 178-79, March 20, 1915.
Conditions in New York. Says: "The fact is, I think, that we have no experience which will enable us to decide conclusively in behalf of either state or local control." Concludes, however, that city boards of education are an anomaly at present.

612. **The Gary school system.** School bulletin, 41: 133-36, March 1915.

Report of a committee appointed by Board of education of Syracuse, N. Y., to inspect and study the schools of Gary, Ind. Also published in pamphlet form by the Board.

613. **Holton, Edwin L.** Educational re-organization. American school, 1: 77-78, March 1915.

"The two great steps needed to bring needed improvement to the public schools are, to recast the course of study in the light of present day needs, and to banish politics from the appointment of school officials."

614. **Winship, A. E.** Text-books—educational, commercial, and political. Journal of education, 81: 285-88, March 18, 1915.

Address before the Department of superintendence, National education association.

SCHOOL MANAGEMENT.

615. **Alderman, Lewis E.** School credit for home work. Boston, New York [etc.] Houghton Mifflin company [1915] 181 p. illus. 12°.

616. **Meek, Charles S.** A study in retardation and acceleration. Elementary school journal, 15: 421-31, April 1915.

Based upon investigations made in the schools of Boise, Idaho, 1911 and 1914. Advocates the use of an individual standard for promoting pupils, rather than a uniform standard for an entire grade.

617. **Müller, H. L.** Report on the sixty-minute class period in the Wisconsin high school. School review, 23: 244-48, April 1915.

Says that the plan increases materially the net teaching time. It simplifies the problem of program-making. Gives comments by teachers in the school.

618. **Perry, Arthur O., Jr.** Discipline as a school problem. Boston, New York [etc.] Houghton Mifflin company [1915] xii, 273 p. 12°. (Riverside text-books in education, ed. by E. P. Cubberley)

Offers a method for the diagnosis and treatment of school disciplinary problems, similar to that used by a physician in outlining a plan of treatment for a patient.

SCHOOL ARCHITECTURE.

619. **Challman, S. A.** Some common problems in schoolhouse construction. American school board journal, 50: 11-12, April 1915.

SCHOOL HYGIENE AND SANITATION.

620. **Finegan, Thomas E.** The Department of education and the vaccination law. Albany, The University of the state of New York, 1915. p. [34]-52. 8°.

An address delivered before the Conference of health officers of New York state at Saratoga, September 15, 1914. Reprinted from its Proceedings.

621. **McCord, Clinton P.** The scope of school medical inspection. American education, 18: 460-67, April 1915.

To be continued.

Read in part before the New York state district superintendents' association meeting in Buffalo, November 1914.

The scope of school medical inspection with special reference to New York state under a mandatory law.

PHYSICAL TRAINING.

622. **Public school physical training society.** Annual report of convention held at St. Louis, Mo., April 3, 1914. Reprinted from the American physical education review, October 1914. 27 p. 8°.

Contains: 1. Ethel Ferrin: Methods of interesting school children in good postural habits, p. 1-4. 2. A. A. Knoch: How does physical training aid the school in training its pupils for efficient citizenship? Skill and endurance as developed by physical training, p. 5- . 3. C. F. Weege: Deliberation, reflection, determination, perseverance, and self-control as ends of physical training, p. 10-17. 4. Millicent Hosmer: The development of morality through physical education, p. 18-26.

623. **Society of directors of physical education in colleges.** Report of the annual meeting . . . Chicago, Ill., December 30, 1914. American physical education review, 20: 113-67, March 1915.

Contains: 1. C. L. Brewer: Intercollegiate athletics as part of the work of physical training in colleges of the Southwest, p. 121-24. 2. J. A. Babbitt: Progressive correlation in gymnasium work, p. 125-34. 3. D. A. Sargent: Is war a biological necessity? p. 135-42. 4. P. C. Phillips: Relation of athletic sports to international peace, p. 143-47. 5. W. S. Middleton: The effect of athletic training on the heart, p. 148-63.

624. **Morse, John Lovett.** Athletics in the schools. Harvard graduates' magazine, 23: 369-74, March 1915.

The writer thinks that athletics for boys should be more carefully supervised.

SOCIAL ASPECTS OF EDUCATION.

625. **Beard, Mary Ritter.** Woman's work in municipalities. New York and London, D. Appleton and company, 1915. xi, 344 p. 12°. (National municipal league series.)

Chapter 1, Education, p. 1-44.

626. **Bohn, Frank.** The Socialist party and the public schools. International socialist review, 15: 614-15, April 1915.

Social service work and education related to life discussed.

627. **Hahn, H. H.** Social demands upon elementary education. Middle-west school review, 7: 10-12, March 1915.

The writer says that society makes at least three important demands upon the elementary school curriculum, first, the demand that the subject-matter shall have abundant social value now, second, that its subject-matter shall be representative of all the great social interests, and, third, that the amount of material selected from each social interest shall be the minimum.

CHILD WELFARE.

628. **American association for study and prevention of infant mortality.** Transactions of the fifth annual meeting, Boston, Mass., November 12-14, 1914. Baltimore, Press of Franklin printing company, 1915. 391 p. 8°.

Contains: 1. Helen C. Putnam: Continuation schools and their basis in the elementary grades, p. 235-38. 2. David Snedden: Some possibilities of public schools in reducing infant mortality, p. 239-42; Discussion, p. 242-53.

629. **Kelley, Florence.** Children in the cities. National municipal review, 4: 197-203, April 1915.

Discusses the municipal care of children.

630. **Schoff, Mrs. Frederic.** Guiding the boy in his 'teens. Good housekeeping magazine, 60: 369-75, April 1915.

Discusses the necessity of proper home instruction. Illustrated.

RELIGIOUS EDUCATION.

631. **Collins, Joseph V.** The chief aim of education. Education, 35: 522-28, April 1915.

Discusses religious education and the public schools. Makes a plea for a tolerant and consistent introduction of religious instruction in the common schools, nonsectarian in character.

632. **Cross, Ethan Allen.** Bible study in state colleges and high schools: a way out. American journal of sociology, 20: 700-5, March 1915.

The Greeley, Colo., plan.

633. **Dix, G. H.** Child study, with special application to the teaching of religion. London, New York [etc.] Longmans, Green and co., 1915. 134 p. 12°.

634. **Frayser, Nannie Lee.** The Sunday school and citizenship. Cincinnati, The Standard publishing company [1915] 99 p. 12°.

Bibliography at end of every chapter.

635. **Swetland, Roger W.** Denominational academies. Educational foundations, 26: 460-66, April 1915.

A discussion of the academy movement. The writer says that the demand for such schools in earlier times was on intellectual grounds, while the demand to-day is on social, moral, and religious grounds.

636. Training religious leaders in the Disciples churches. Religious education, 10: 135-58, April 1915.

From the report of the Religious education commission of the Disciples of Christ, presented at the recent convention in Atlanta.

637. **Wood, Irving Francis.** The survey of progress in religious and moral education. Religious education, 10: 114-23, April 1915.

MANUAL AND VOCATIONAL TRAINING.

638. **Commercial club of Chicago.** Vocational schools for Illinois. [Chicago, 1915] 66 p. 8°.

CONTENTS.—Principles and plan of a proposed law.—Wisconsin's experience.—This movement is democratic.—Comparison of Commercial club's bill with that of the state teachers' association.—Draft of bill.

639. **Commonwealth club of California.** Vocational education. San Francisco, Cal., 1914. p. [617]-670. 8°. (*Its Transactions*. Vol. 9, no. 12, November 1914)

Contains proceedings of a meeting under the auspices of the Club's Committee on education, of which Archibald B. Anderson, of the San Francisco state normal school, is chairman.

640. **Cooley, Edwin G.** Vocational education in Europe. Report to the Commercial club of Chicago. Vol. 2. Chicago, The Commercial club of Chicago, 1915. 177 p. illus. 8°.

This volume describes observations and experiences in European vocational schools during the winter of 1913-14. Ireland, England, Holland, Denmark, Sweden, Norway, and Germany were visited, and agricultural instruction was especially studied.

641. ———. Vocational school control in Germany. Industrial-arts magazine, 3: 190-91, April 1915.

A reply to Dr. Roman's article in March 1915 issue of same periodical (item 482 of this record).

642. ———. Welfare of working youth in Germany. Educational review, 49: 337-51, April 1915.

Welfare work in connection with the vocational schools. Statistics giving results of such work in 1910. Activity of the state in directing continuation schools and preparing teachers.

643. **Dewey, John.** Splitting up the school system. New republic, 2: 283-84, April 17, 1915.

Professor Dewey here voices his opposition to separate vocational schools.

644. **Duley, W. J.** Continuation schools and the training of engineers. School world, 17: 83-86, March 1915.

Suggestions concerning education of engineers in England. Discusses apprenticeship, etc.

645. **Griffith, Ira S., ed.** Two units of manual training for high schools. Manual training and vocational education, 16: 480-92, April 1915.

Contains helpful material for teachers and supervisors who have to do with organizing the detail of shop courses and planning equipments.

646. **Moore, E. C.** The dual system of vocational education. Illinois teacher, 3: 5-9, March 1915.

"Some quotations from the literature advocating a separate system for vocational education."

647. **Prosser, C. A.** The evolution of the training of the worker in industry. Educational monthly, 1: 36-46, April 1915.

648. ———. The place of art in industry. Industrial-arts magazine, 3: 155-58, April 1915.

Abstract of an address before the Eastern art and manual training association, April, 1914.

The writer says that "all children should have an opportunity while they are going thru the schools . . . to have their sense of appreciation of the things that are right and good and true and beautiful developed so that they may be intelligent consumers of the goods of life, so that they may learn to use aright the best things and to enjoy both their work and their leisure."

649. **Shields, Thomas Edward.** Vocational education. Catholic educational review, 9: 289-303, April 1915.
Survey of the field.
Discusses the report of the Commission on national aid to vocational education, and the attitude the Catholic schools should have toward the movement to introduce the vocational subjects into the schools.
650. **Smith, William Hawley.** "Over-equipped and undertaught." Industrial-arts magazine, 3: 145-48, April 1915.
Thinks that the industrial schools of this country are over-equipped, but that they are undertaught owing to the lack of properly trained teachers.
651. **Thompson, Frank V.** Industrial society and industrial education. School and society, 1: 402-8, March 20, 1915.
Read at the Boston principals' meeting, January 12, 1915.
Speaks of industrial conditions today and considers what the Boston school system is attempting in extension education for its boys and girls.

VOCATIONAL GUIDANCE.

652. **Horton, D. W.** A plan for vocational guidance. School review, 23: 236-43, April 1915.
Discusses the organization of vocational guidance as carried out in the Mishawaka high school, Indiana. Outlines a course of study for vocational work.
653. **Reed, Mrs. Anna Y.** Seattle children in school and in industry with recommendations for increasing the efficiency of the school system and for decreasing the social and economic waste incident to the employment of children 14 to 18 years of age. Seattle, Wash., Board of school directors, 1915. 163 p. 12°.
654. **Weaver, Eli W.** Profitable vocations for girls. New York and Chicago, The A. S. Barnes company, 1915. ix, 212 p. 12°.
655. ——— and **Byler, J. Frank.** Profitable vocations for boys. New York and Chicago, The A. S. Barnes company, 1915. 282 p. 12°.

AGRICULTURAL EDUCATION.

656. **Teveraham, T. F.** Experimental agriculture in rural secondary schools. School world, 17: 87-90, March 1915.
Says that any science scheme for rural secondary schools must be experimental and inductive observation must precede fact. Pupils should not only be taught the principles of cultivation, of plant-growth and nutrition, etc., but that these principles must be practically administered.

HOME ECONOMICS.

657. **Cooley, Anna M.** The Amy Schüssler apartment. Teachers college record, 16: 51-60, 158-72, January, March 1915.
Apartment where the older girls may have an opportunity to apply in a "home house" the instruction which they receive in the household arts laboratories at Speyer school. The March issue contains a tentative outline of the course of study in the household arts to be used in the seventh and eighth grades of Speyer school.
658. **Whitcomb, Emeline Storm.** The school luncheon. [Laramie, 1914] 15 p. 12°. (University of Wyoming bulletin. vol. XI, no. 2.)

COMMERCIAL EDUCATION.

659. **Eaton, Jeannette and Stevens, Bertha M.** Commercial work and training for girls. New York, The Macmillan company, 1915. xviii, 289 p. 12°.
Contains material prepared under the auspices of the Co-operative employment bureau for girls, Cleveland, Ohio.
660. **Fowler, Nathaniel C., jr.** A new method of imparting business education. Journal of education, 81: 345-48, April 1, 1915.
Describes the demonstration form of imparting business information. Instead of telling people what business is, the writer shows them what business is by presenting in the form of a play the action of every department of business. The writer says that this form of imparting business education has already received the hearty co-operation of our leading educators and business men.

PROFESSIONAL EDUCATION.

661. **American medical association. Council on medical education.** Report of the eighth annual conference, Chicago, Ill., February 16, 1915. American medical association bulletin, 10: 221-325, March 15, 1915. (N. P. Colwell, secretary, 535 North Dearborn street, Chicago, Ill.)

Contains: 1. N. P. Colwell: Eleven years' progress in medical education, p. 232-44. 2. V. C. Vaughan: A preliminary report on the reorganization of clinical teaching, p. 244-60; Discussion, p. 259-68. 3. G. E. Vincent: The university and higher degrees in medicine, p. 268-77. 4. M. J. Rosenau: Courses in degrees in public health work, p. 277-83; Discussion, p. 283-87. 5. H. D. Arnold: Report of the committee to investigate graduate medical instruction, p. 298-307; Discussion, p. 307-16.

662. **Redlich, Josef.** The common law and the case method in American university law schools. A report to the Carnegie foundation for the advancement of teaching. New York city, 576 Fifth avenue [1914] xi, 84 p. 4°. (Carnegie foundation for the advancement of teaching. Bulletin no. 8.)

An introductory bulletin to the Foundation's study of legal education in the United States, which is to involve not only an examination of existing law schools, but also of methods of instruction, of bar examinations, and of the relation of these matters to the quality of legal practice.

663. **Talbot, Eugene S.** The problem of dental education. Dental cosmos, 57: 424-28, April 1915.

Outlines a course of study for dental schools.

MILITARY TRAINING.

664. **Schaeffer, Nathan C. and Finley, John H.** Should our educational system include activities whose special purpose is preparation for war? Boston, American school peace league, 1915. 21 p. 8°.

Addresses delivered before the Department of superintendence of the National education association at Cincinnati, Ohio, February 24, 1915.

EDUCATION OF WOMEN.

665. **General federation of women's clubs.** Twelfth biennial convention, June 9-19, 1914, Chicago, Ill. Official report, 1914. 635 p. 8°. (Mrs. Eugene Reilley, corresponding secretary, Charlotte, N. C.)

Contains: 1. P. P. Claxton: The educational and cultural value of home economics, p. 242-51. 2. F. M. Leavitt: Vocational education and vocational guidance, p. 461-69. 3. Annie Davis: Vocational guidance in Chicago, p. 469-73.

666. **Krause, Maria.** Zur reform des oberlyzeums. Frauenbildung, 13: 505-21, 11. heft, 1914.

Proposals for a reform of the higher girls' school (oberlyzeum). The proposals include a revision of the course of study.

NEGROES AND INDIANS.

667. **Hall, Robert D.** Student Y. M. C. A. work for Indians. Southern workman, 44: 234-38, April 1915.

668. **Hill, W. B.** Rural survey of Clarke county, Georgia, with special reference to the negroes. [Athens, Ga., 1915] 63 p. illus. 8°. (Bulletin of the University of Georgia, vol. 15, no. 3. Phelps-Stokes fellowship studies, no. 2.)

ORIENTALS.

669. **Kuo, Ping Wen.** The Chinese system of public education. New York city, Teachers college, Columbia university, 1915. xii, 209 p. 8°. (Teachers college, Columbia university. Contributions to education, no. 64.)
 CONTENTS.—1. Origin of the ancient educational system.—2. Ancient educational system and its decadence.—3. Brief survey of the development of education during subsequent dynasties.—4. Transition from traditional to modern education.—5. Construction of a modern educational system.—6. Reorganization of education under the Republic.—7. Present-day educational problems of national importance.—8. Summary and conclusions.—Appendix and Bibliography.
 This volume portrays the recent efforts of the Chinese to obtain a familiarity with Western learning, and also places in a clear light the stages in the long evolution of their native culture and educational system. The Introduction by Paul Monroe calls the book "a contribution of great importance to the Western knowledge of Eastern conditions."
670. **Rottach, Edmond.** Les écoles libres d'enseignement secondaire au Japon. Éducation, 16: 416-26, December 1914.
671. **Schneder, D. B.** Mission schools and state education in Japan. Chinese recorder (Shanghai, China), 46: 164-69, March 1915.
 Advocates the advance of Christian education to the university grade.
672. **Sec, Fong F.** Government and mission education in China. Chinese recorder (Shanghai, China), 46: 158-64, March 1915.
 Welcomes the cooperation of mission schools with the Government. See also article by P. W. Kuo on same topic, p. 169.
673. **Yui, David Z. T.** Education and democracy in China. Chinese recorder (Shanghai, China), 46: 151-57, March 1915.
 Effect of mission schools and colleges in moral uplift. Says that one of the chief reasons for the success of Christian education is the excellent discipline maintained in the schools.

DEFECTIVE AND DELINQUENT CHILDREN.

674. **Davis, Gwilym G.** The education of crippled children. American journal of care for cripples, 2: 11-14, 1915.
 Presidential address before the American orthopedic association. Reprinted by permission from the American journal of orthopedic surgery, Philadelphia, 1914-1915.
675. **Hutchinson, Woods.** Children who never grow up. Good housekeeping magazine, 60: 421-26, April 1915.
 Discusses the cause, menace, and the cure of feeble-mindedness. Illustrated.
676. **McMurtrie, Douglas C.** Open air treatment for crippled children; the country home for convalescent children. American journal of care for cripples, 2: 15-20, 1915.
 Describes the equipment and work of the Country home for convalescent children, located at Prince Crossing, Illinois.
677. **Monro, Sarah J.** A résumé of the rhythmic work in the Horace Mann school, Boston. Volta review, 17: 133-38, April 1915.
 Says that pupils gain a more natural use of the voice in inflection, greater volume of tone without undue force, and a more natural use of the speech organs. Rhythmic methods as applied to teaching the deaf.
678. **Walmaley, H. E.** How I taught my boy the truth. Volta review, 17: 123-31, April 1915.
 Early training of a child in scientific knowledge; sex problems, etc.
679. **Worcester, Alice E.** How shall my children be taught to pronounce at sight the words of our written language? Volta review, 17: 85-93, March 1915.
 An exposition of the phonetic reading method devised by the author. In a modified form this method is used in nearly all of the schools for the deaf in the United States.

LIBRARIES AND READING.

680. **Hicks, Frederick C.** Library problems in American universities. Educational review, 49: 325-36, April 1915.

Extension and growth of university libraries. Discusses library problems in Harvard, Columbia, and Princeton. University extension at Columbia university has created a great demand for new books; actual number of potential readers added to clientele of the library by the extension department in 1913-14 was 2,813.

681. **Johnston, William Dawson.** The school librarian: training and status. Public libraries, 20: 151-54, April 1915.

Read before Library section, Minnesota educational association, Duluth, February 12, 1915.

BUREAU OF EDUCATION: RECENT PUBLICATIONS.

682. Accredited secondary schools in the United States; by Samuel Paul Capen. Washington, 1915. 106 p. (Bulletin, 1915, no. 7)
683. One thousand good books for children. Classified and graded list prepared by National congress of mothers literature committee, Alice M. Jordan, chairman. (Revised, 1914) Washington, 1915. 40 p. (Home education circular no. 1)
684. Organization of state departments of education; by A. C. Monahan. Washington, 1915. 46 p. (Bulletin, 1915, no. 5)
685. Present status of the honor system in colleges and universities; by Bird T. Baldwin. Washington, 1915. 31 p. (Bulletin, 1915, no. 8)
686. A statistical study of the public schools of the southern Appalachian mountains; by Norman Frost. Washington, 1915. 29 p. (Bulletin, 1915, no. 11)
Preliminary edition.
687. A study of the colleges and high schools in the North Central association. Washington, 1915. 130 p. (Bulletin, 1915, no. 6)



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INDEX

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PREFATORY NOTE.

The present index, covering the nine issues of the monthly record of current educational publications from February, 1914, to January, 1915, inclusive, is designed to equip the series for use as an annual bibliography of education for 1914. During the period named the record was published each month, with the exception of June, July, and August, 1914, the entries for these three months appearing in the September issue. The references in the index are to the item numbers, which run consecutively through the series of nine bulletins up to a total of 2,094 entries. The plan is the same as that of the 1913 index to the record (Bulletin, 1914, no. 15), including both a complete author list and a full system of subject headings.

The index was compiled by Miss Isabel L. Towner, head cataloguer in the library of the Bureau of Education.

MONTHLY RECORD OF CURRENT EDUCATIONAL PUBLICATIONS: INDEX, FEBRUARY, 1914-JANUARY, 1915.

[The numbers refer to item, not to page. Names of persons about whom articles or books are written, and references to subjects, are printed in small capitals.]

A.

- Abbot, Julia W., 454.
 ABBOTSHOLME, ENG., 911.
 Abbott, Christabel, 922.
 Abbott, Lyman, 682.
 Abel, Mary H., 777.
 Abercrombie, J. W., 137.
 ABILITY TESTS. *See* MENTAL TESTS.
 ABNORMAL CHILDREN. *See* BACKWARD CHILDREN;
 EXCEPTIONAL CHILDREN; FEEBLE-MINDED.
 Abrams, A. W., 910.
 ACADEMIC DEGREES. *See* DEGREES.
 ACADEMIC FREEDOM, 457, 394, 1794, 1983.
 ACCOUNTING. *See* SCHOOL FINANCE
 Acheson, J. C., 1658 (14).
 Adams, G. S., 1301 (23).
 Adams, Harriet C., 835.
 Adams, John, 856.
 Adams, M. B., 1658 (11).
 ADDAMS, JANE, 1429.
 Addington, R. M., 1667.
 Adee, J. N., 177 (47).
 Adkins, F. J., 138.
 Adler, Alfred, 1910.
 Adler, N., 1144.
 ADMINISTRATION, schools, 106-109, 177 (12) (71)-(72),
 291-302, 414, 425, 488-493, 700-712, 819 (13) (19),
 1068-1090, 1408-1412, 1571-1573, 1795, 1999-2008;
 universities and colleges, 96, 176 (5), 177 (43)-(45),
 685, 1564, 1663 (1), 1791, 1795. *See also* SCHOOL
 FINANCE; UNIVERSITIES AND COLLEGES, finance.
 ADOLESCENCE, 397 (2), 1499, 1661 (9), 1899 (13), 2039.
 Aery, W. A., 1259.
 AFFILIATED COLLEGES. *See* COORDINATE COLLEGES.
 AFRICA, education, 1301 (40), 1460, 1642.
 AGE. *See* SCHOOL AGE.
 Agnew, Ella J., 545.
 AGRICULTURAL CLUBS, 1210, 1311 (5), 2055.
 AGRICULTURAL COLLEGES. *See* LAND-GRANT COL-
 LEGES.
 AGRICULTURAL EDUCATION, 773-776, 813 (3), 827 (9),
 1209-1211, 1301 (9), 1307 (4), 1471 (3), 1657 (9), 1847-
 1848, 1877, 1899 (19), 2055-2057; elementary schools,
 177 (80) (81), 228, 248, 701 (11), 821 (6), 829 (2); high
 schools, 775, 1209, 1307; normal schools, 819 (18).
See also LAND-GRANT COLLEGES.
 AGRICULTURAL EXTENSION, 802 (7)-(9), 802 (16),
 1896 (3).
 Ahern, Miss M. E., 1301 (14).
 AID TO SCHOOLS, 177 (23), 826 (10), 1567.
 Aikens, Charlotte A., 1233.
 AKRON, OHIO. MUNICIPAL UNIVERSITY, 1663 (2).
 ALABAMA, education, 820 (1), 1366.
 Alabama. Dept. of education, 1366.
 Alabama educational association, 820.
 ALASKA, education, 2093.
 ALBANY NORMAL SCHOOL, 1984.
 Albaugh, Laura L., 1643.
 Albrecht, E., 361.
 Albright, C. E., 1929.
 Alder, Louise M., 177 (32).
 Alderman, L. R., 177 (17), 1684.
 ALDERMAN, L. R., 70.
 Alderman, S. S., 1752.
 Alexander, Carter, 805 (4).
 Alexander, H. Q., 1370 (4).
 Alexander, J. W., 1993.
 Aley, R. J., 815 (2), 1648, 1753.
 ALGEBRA, 958.
 Allington, C. A., 1974.
 Allen, A. T., 1661 (11).
 Allen, E. A., 1301 (22).
 Allen, I. M., 76.
 Almstedt, Hermann, 824 (10), 1308 (1).
 Alsup, T. E., 1545.
 ALTAMIRA, RAFAEL, 841.
 ALUMNI ASSOCIATIONS, 1402.
 AMBIDEXTERITY, 896. *See also* LEFT-HANDEDNESS.
 American academy of medicine, 1101.
 American association for the advancement of agri-
 cultural teaching, 1877.
 American institute of child life, 1145.
 American institute of instruction, 801.
 American library association, 1467.
 American medical association. Council on medical
 education, 1223-1224, 1453.
 American nurses' association, 1454.
 American philosophical association, 287.
 American political science association, 1237-1238.
 American school peace league, 174.
 Ames, E. S., 323.
 Amrhein, —, 1378.
 Anderson, E. H., 1468.
 Anderson, H. B., 1581.
 Anderson, J. D., 277.
 Anderson, Mrs. Jane P., 494.
 Anderson, Madge, 36.
 Anderson, Meta L., 825 (7).
 Anderson, P. H., 836.
 Anderson, Peter, 826 (8).
 Anderson, V. V., 2076.
 Anderson, W. L., 1451, 1635.

- Andress, J. M., 433, 625, 1537.
 Andrews, C. B., 857.
 Andrews, Fannie F., 2031.
 Andrews, Harriet U., 792.
 Angell, J. R., 681 (5).
 Antrim, E. I., 1282.
 Antrim, Saida B., 1282.
 Appleton, R. B., 37.
 APPRENTICESHIP, 145, 811 (5) (6), 1445.
 ARBEITSSCHULE, 247, 763.
 ARCHAEOLOGY, study, 750.
 Arias, Maria V., 1716.
 ARITHMETIC, 177 (37), 241, 435, 439, 442, 444, 611, 868, 954, 957, 959, 1522, 1730.
 ARKANSAS, rural life, 1760.
 ARKANSAS STATE NORMAL SCHOOL, 80.
 Arkansas state teachers' association, 821.
 Arkansas teachers' association (colored), 1886.
 Armani, Tarquinio, 9.
 Armstrong, D. W., 701 (5).
 Armstrong, H. E., 1510, 1685.
 Armstrong, L. E., 581.
 ARMSTRONG, S. C., 566.
 Arnold, Felix, 222.
 Arnold, H. D., 1223 (5).
 Arnold, Mrs. Jean B. C., 1748.
 Arnold, Sarah L., 2058.
 ART EDUCATION, 49, 177 (56), 180 (5), 224, 963-969, 1295, 1301 (12), 1665 (2) (5).
 ART METAL WORK, 1443.
 ARTS AND CRAFTS, 180 (5).
 Ashbee, C. R., 457.
 Ashmore, Otis, 1473 (4).
 ASIA, education, 1301 (40), 1641.
 Asplund, R. F., 1674.
 Associated academic principals and Council of elementary school principals and teachers, 1302.
 Association of American agricultural colleges and experiment stations, 802.
 Association of American medical colleges, 1.
 Association of American universities, 803.
 ASSOCIATION OF AMERICAN UNIVERSITIES, 684.
 Association of colleges and preparatory schools of the middle states and Maryland, 804.
 Association of colleges and secondary schools of the Southern states, 805.
 ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES, 182 (4).
 Association of collegiate alumnae, 806; California branch. School survey class, 1675.
 ASSOCIATION OF COLLEGIATE ALUMNAE, 787.
 Association of district superintendents, New York, 1909.
 Association of history teachers of the middle states and Maryland, 807.
 Association of men teachers and principals of the city of New York, 1470.
 ASSOCIATIONS, SOCIETIES, AND CONFERENCES, 397 (5) (6), 819 (9), 1301 (25); city, 1303, 1470; foreign, 180, 828, 1474, 1699; international, 175, 1100, 1157, 1304-1305, 1655; national, 1-3, 174, 176, 177-179, 181-182, 392, 395, 801-819, 1225, 1302, 1309, 1471-1472, 1653, 1660, 1662, 1665, 1877, 1887, 2019, 2068; state, 4-5, 393-395, 397-398, 820-830, 980, 1306-1308, 1310-1311, 1473, 1475, 1654, 1656, 1657-1659, 1661, 1663-1664, 1666, 1886, 1888-1889.
 ASTRONOMY, 234.
 Athearn, W. S., 1158, 2035.
 ATHENIAN EDUCATION, 20.
 Atherton, Lewis, 38.
 ATHLETICS, 330, 589, 734 (1), 738, 1812, 1815, 1816; intercollegiate, 1127, 1604; supervision, 176 (13), 329, 827 (21).
 Atkinson, B. K., 1426.
 ATTENDANCE, 465, 1409, 2015.
 ATTENTION, 890.
 Austin, G., 1653 (13).
 AUSTRALIA, education, 1301 (41), 1678, 1901.
 AUSTRIA-HUNGARY, education, 1301 (37), 1399.
 Aven, J. E., 713.
 Avery, Samuel, 176 (14).
 Aydelotte, Frank, 1717.
 Aymer-Small, Sidney, 433.
 Ayres, L. P., 177 (19), 530, 700 (4), 753, 837.
 AYRES SCALE, 1709.
 B.
 Babcock, E. J., 1463.
 Babcock, Jessie T., 1463.
 Babcock, K. C., 148, 803 (4), 1301 (2), 1662 (5).
 Babo, M. von, 1458.
 Bachman, F. P., 462, 1091, 2007.
 BACKWARD CHILDREN, 568, 605, 814, 1068, 1588, 1661 (8). *See also* ELIMINATION; EXCEPTIONAL CHILDREN; PROMOTION OF PUPILS; RETARDATION.
 Bacon, R. F., 1830.
 BACON, ROGER, 1555.
 Badger, L. F., 1754.
 Badley, J. H., 1249.
 Bagley, W. C., 392 (1), 413, 1403, 1796, 2006-2008.
 Baginsky, Adolf, 721 (10).
 Bagster-Collins, E. W., 1766 (11).
 Bailey, Carolyn S., 32.
 Bailey, H. T., 224.
 Bailey, L. H., 1370 (1) (2).
 Baish, H. H., 827 (1).
 Baker, Benjamin, 548.
 Baker, E. E., 1546.
 Baker, F. T., 1766 (9).
 Baker, J. C., 1619.
 Baker, T. S., 395 (3).
 Balch, Emily G., 382.
 Baldwin, Dr., 827 (18).
 Baldwin, B. T., 1294, 1379.
 Baldwin, C. S., 924.
 Baldwin, J. A., 1471 (17).
 Baldwin, R. L., 810 (4).
 Baldwin, R. N., 1613.
 Bales, Alba, 177 (58).
 Ball, A. H., 828 (3).
 Ball, Margaret, 368.
 Ballard, Anna W., 626.
 Ballet, T. M., 175 (1), 318, 1983.
 Ballou, F. W., 801 (7), 1000, 1494, 1911.
 BALTIMORE BUREAU OF STATISTICS AND RESEARCH, 298.
 Bancroft, E. M., 1414.
 Bardeen, C. W., 1302 (5), 1891, 1898.
 Barker, H. S., 1657 (2).
 Barnard, J. L., 177 (7), 807 (3).
 Barnes, Earl, 824 (1) (3) (6).
 Barnes, F. G., 793.
 Barnett, Mary G., 161.
 Barry, Maggie W., 1309 (8).

- Barth, Paul, 1930.
 BARTHOLOMEW CO., IND., school hygiene, 1543.
 Barton, E. D., 1641.
 Barton, J. L., 524.
 Barton, S. G., 1718.
 Barton, W. J., 949.
 Baskerville, Charles, 115.
 BASKETRY, 1658 (17).
 BATAVIA SYSTEM, 1509.
 Batchelor, Bronson, 1235.
 Bateman, W. G., 883.
 Bates, Mary E., 177 (78).
 Baumann, Friedrich, 858.
 Bawden, W. T., 754, 1301 (11).
 Baxter, J. K., 1311 (1).
 Bayne, Margaret W., 401.
 Beach, C. E., 177 (79).
 Beach, W. W., 718.
 Bean, C. H., 39.
 Beard, C. A., 807 (5), 2068 (4).
 Beard, Frederica, 1975.
 Bec, —, 1215.
 Becht, J. G., 397 (7), 605.
 BEDALES SCHOOL, PETERSFIELD, ENG., 2070.
 Beech, F. A., 659.
 Beegle, Mary P., 509.
 Beers, H. A., 1035.
 Beesley, T. Q., 1931.
 BELGIUM, secondary education, 270, 467, 1016.
 Bell, C. H., 10.
 Bell, H. M., 1656 (3).
 Bell, Julia, 1342.
 Bellamy, Raymond, 1782.
 Benedict, G. W., 808 (1).
 Benjamin, C. H., 278.
 Bennett, C. A., 1433, 1665 (8).
 Bennett, R. D., 263.
 Benson, A. C., 180 (2).
 Benson, O. H., 395 (7), 1311 (5), 2055.
 Bentley, J. H., 1657 (8), 1658 (22).
 Berendsohn, W. A., 88.
 BERGSON, HENRI, 681.
 BERKELEY, CAL., public schools, 488.
 BERLIN, continuation schools, 799; curriculum, 493.
 Berryman, W. B., 251.
 Best, R. H., 1272.
 Betts, G. F., 1306 (4).
 Betts, G. H., 62.
 Bevan, A. D., 549, 1223 (1).
 Bevard, Catherine H., 1605.
 Beveridge, J. H., 303, 1656 (1).
 Beyer, T. P., 153.
 BIBLE IN SCHOOLS, 520, 1653, (10), 2086.
 BIBLE STUDY, 135; accrediting, 815 (11), 824 (12).
 BIBLIOGRAPHY, 386, 831 (4), 1900.
 BIBLIOTHEQUE NATIONALE, 1285.
 Biesele, R. L., 1664 (12).
 Bigelow, H. S., 1306 (8).
 Bigelow, M. A., 1732, 1888 (13).
 Binet, Alfred, 2077.
 BINET-SIMON TESTS, 28, 30-31, 814 (4), 894, 904, 907, 1495, 1501, 1702-1708, 1708, 2077. *See also* MENTAL TESTS.
 Binkerd, R. S., 2068 (9).
 Binkun, R. B., 1664 (13).
 Binsel, Alma L., 57.
 BIOGRAPHY, 399, 581-584, 832-834, 1312-1319, 1426-1479, 1667-1673.
 BIOLOGY, 448, 641, 650, 1732.
 BIRDS, study of, 8646.
 Birge, E. B., 810 (2).
 Bishop, C. M., 1664 (7).
 Black, R. M., 139, 826 (5).
 Black, W. W., 1719.
 Blackwell, Elizabeth, 319.
 BLAINE, WASH., public schools, 853.
 Blak, F. G., 394 (3), 398 (5), 1311 (9).
 Blakesley, O. J., 495.
 Blanchar, Ora A., 1665 (11).
 Blanchet, P. R., 1308 (3).
 Bland, Mrs. Edith (N.), 250.
 Bland, H. M., 1608.
 Blanguernon, Edmond, 202.
 Blewett, Ben, 177 (21).
 BLIND, education, 371-373, 795, 1301 (22).
 Bloomfield, Meyer, 580.
 Blount, R. E., 1309 (13).
 Blue, L. A., 1984.
 Blumenthal, G. A., 26, 129.
 BOARDING SCHOOLS, 1318.
 Boas, Franz, 721 (23).
 Boas, Frederick S., 1312.
 Bobbitt, J. F., 1404.
 Boddy, W. H., 1431.
 Boehringer, Louise C., 981.
 Börner, Wilhelm, 339.
 Bogart, G. H., 1808.
 Bohn, Frank, 585.
 Bole, J. A., 77.
 Bolinius, Emma M., 925.
 BOLPUR, INDIA. SCHOOL OF TAGORE, 915.
 Bolton, F. E., 1899, 1965-1966.
 Bondurant, A. L., 1307 (8).
 Bone, Woutrina A., 180 (4).
 Bonser, F. G., 1202, 1302 (7).
 Book, W. F., 823 (7).
 BOOKKEEPING, 1221.
 BOOKS AND READING. *See* LIBRARIES AND READING.
 Booth, Mary J., 40.
 Boshart, E. W., 1622.
 BOSTON, MASS. HIGH SCHOOL OF PRACTICAL ARTS, 1251.
 Bostwick, A. E., 165, 383, 2085.
 BOTANY, college entrance requirements, 1658 (20); teaching, 1513.
 Boucher, A. S., 398 (7).
 Boughton, Alice, 1102.
 BOULDER COUNTY, COLO., school supervision, 997.
 Boulder county teachers' association, Colo., 1574.
 Bourne, H. E., 1766 (14).
 Bourne, R. S., 1686.
 Boutroux, Emile, 89.
 Bowen, L. de K., 1820.
 Bowen, W. P., 1124.
 BOY SCOUTS, 1246-1248, 1457, 1859-1860.
 Boyd, G. F., 1307 (6).
 Boyd, W. K., 1668.
 Boyd, William, 970.
 Boyer, P. A., 1092.
 Boykin, J. C., 389, 1298.
 Boynton, F. D., 264.

- Boynton, P. H., 1385.
 BOYS, 336-337, 1449, 1612, 1616, 1666 (2).
 BOYS' CLUBS, 1481. *See also* AGRICULTURAL CLUBS.
 Bradford, Mary D., 1666 (5).
 Brawn, Dr., 19.
 Bralley, F. M., 1428, 1471 (13), 1664 (4), (14).
 Brandenberger, Konrad, 884.
 Brandon, E. E., 1036, 1994.
 Branford, Victor, 638.
 Brannan, J. W., 721 (22).
 Branson, E. C., 1661 (4).
 Bray, F. C., 1273.
 Breckinridge, Mrs. D., 1471 (10).
 Bremer, H. M., 813 (3).
 Brennan, G. A., 1309 (19), 1720.
 Brennan, J. V., 1627.
 Brereton, C. S. H., 346, 1456.
 BRERETON, C. S. H., 839.
 Breslau. Studentisch-pädagogische tagung, 608.
 Breslich, E. R., 178 (2).
 Brewer, G. W. S., 1212.
 Bricker, G. A., 701 (11), 1018, 1847.
 Bridge, Helen, 1660 (7).
 Bridgeford, Edna G., 1582.
 Bridgeman, Olga, 1265.
 Briggs, Le B. R., 1126.
 Briggs, T. H., 225.
 Brigham, C. C., 1495.
 Brinton, J. Y., 1146.
 Brisby, Drusie P., 452.
 Brisco, N. A., 1831.
 Brister, J. W., 1309 (12).
 Bristol, G. P., 1302 (1) (2).
 Brittain, H. L., 410, 1406.
 Brittain, M. L., 1473 (1).
 Broadfoot, M. D., 1307 (5).
 Broadley, Kalsa, 180 (9).
 Broadus, E. K., 203.
 Broer, F. W., 1666 (8).
 Bronson, W. C., 1783.
 BROOKLYN, N. Y. EASTERN DISTRICT HIGH SCHOOL, 77.
 Brooklyn teachers' association, 1303.
 Brooks, E. A., 812 (4).
 Brooks, E. C., 496, 1001.
 Brooks, R. C., 177 (18).
 Brooks, S. D., 291.
 Broome, E. C., 1372.
 Brough, C. H., 821 (1).
 Broughton, Hugh, 2016.
 Brown, C. A., 820 (6).
 Brown, E. E., 189, 1286.
 Brown, E. F., 1800.
 Brown, E. G., 721 (5).
 Brown, Fannie W., 919.
 Brown, G. A., 608.
 Brown, Grace L., 454.
 Brown, H. A., 463, 609, 916, 962, 1547.
 Brown, H. E., 1002, 1662 (2).
 Brown, Helen D., 1636.
 Brown, J. B., 1865-1866, 2041.
 Brown, J. C., 435.
 Brown, J. F., 1721.
 Brown, S. W., 177 (36).
 Brown, W. T., 1471 (4).
 BROWN UNIVERSITY, 1783, 1790.
 Brown university teachers' association, 808.
 Browne, Hetty, 819 (22).
 Browning, J. W., 1589 (5).
 Brubacher, A. R., 745, 926.
 Bruce, H. A., 13, 336, 885.
 Bruce, Hortense V., 814 (5).
 Bruce, Lillian H., 510.
 Bruce, W. C., 719.
 Bruce, W. H., 1380.
 Brumbaugh, M. G., 825 (2), 827 (7).
 BRUMBAUGH, M. G., 1314.
 BRUSSELS. TAILORS' SCHOOL, 348.
 Bryan, E. B., 824 (2).
 Bryan, W. J., 1273.
 Bryan, W. J. S., 1662 (10).
 Bryan, W. L., 687.
 Buchner, E. F., 1659 (2).
 Buck, George, 1662 (3).
 Buck, P. M., Jr., 58.
 Bucke, W. F., 414.
 BUDDHIST UNIVERSITY, CHANG'AN, CHINA, 2073.
 Buffalo. Chamber of commerce, 1170.
 Buhrman, Carrie E., 1824.
 Buisson, F., 1676.
 BULGARIA, education, 849.
 Bulkley, Mildred E., 1103.
 Bulloch, Annie, 1307 (2).
 Bunker, F. F., 488.
 Bunting, Mary H. L., 1147.
 Burckhardt, Oscar, 1474 (2).
 Burd, H. A., 226.
 BUREAU OF EDUCATION OF THE JEWISH COMMUNITY OF NEW YORK CITY, 1301 (16).
 Bureau of municipal research, New York, 497.
 Burg, B. B., 1171.
 Burgerstein, Leo, 721 (14), 1104.
 Burgess, Elizabeth, 1660 (3).
 Burgess, J. W., 279.
 Burgess, T. W., 1246.
 Burkett, C. W., 1848.
 Burkholder, E. C., 927.
 Burnham, W. H., 116, 721 (11), 1415, 1900.
 Burns, J. A., 1653 (1).
 Burr, G. L., 1722.
 Burrige, F. V., 1172.
 Burris, W. P., 1296, 1658 (4).
 Burroughs, O. W., 397 (2).
 Burton, A. C., 1658 (13), 1970.
 Burton, Margaret E., 1250.
 Burt, R. C., 4 (1).
 BUSINESS. *See* HIGHER EDUCATION AND BUSINESS; EMPLOYERS, selection.
 BUSINESS EDUCATION, 42, 177 (61) (62), 365, 548, 823 (6), 1218-1222, 1301 (11), 1451-1452, 1635, 1852.
See also CORPORATION SCHOOLS; VOCATIONAL EDUCATION.
 Butcher, T. W., 415.
 Butler, G. F., 1226.
 Butler, N. M., 475, 683, 1173, 1677.
 Butler, Nathaniel, 1373.
 Butterfield, K. L., 802 (8), 993 (5), 1538.
 C.
 Cabot, A. T., 721 (9).
 Cabot, Ella L., 829 (3), 850, 1456.
 Cabot, R. C., 1646.
 Cajori, Florian, 227, 607.
 CALABAR MISSION, 1642.

- Caldwell, O. W., 778, 1932.
 Calgary, Alberta. Protestant public school board, 1174.
 CALIFORNIA. UNIVERSITY. PLAY SCHOOL, 1606.
 Call, A. P., 395 (5).
 CALLAO, PERU, education, 594.
 CAMBERWELL, ENG. MARY DATCHELOR GIRLS' SCHOOL, 563.
 CAMBRIDGE UNIVERSITY, 93, 105.
 Campbell, E. E., 304, 498.
 Campbell, P. L., 176 (10).
 CAMPS, 914.
 CANADA, education, 591, 1301 (30); higher education, 281, 699; industrial education, 755; rural schools, 460.
 Canada. Royal commission on industrial training and technical education, 531, 755.
 Canby, H. S., 627, 1345.
 CANNING CLUBS, 545. *See also* AGRICULTURAL CLUBS.
 Cantwell, J. W., 1987.
 Capen, S. P., 1557.
 Cardullo, F. E., 1175.
 CAREER, CHOICE OF. *See* VOCATIONAL GUIDANCE.
 Cariton, F. T., 756, 2030.
 Carmichael, O. C., 262.
 Carnegie foundation for the advancement of teaching, 199, 1037.
 CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING, 793.
 Carnegie institution of Washington, 290.
 Carney, Mabel, 824 (7).
 Carpenter, J. E., 2073.
 Carpenter, W. H., 684.
 Carr, J. W., 700 (9), 1300 (3).
 Carr, W. L., 943.
 Carrington, W. T., 177 (49).
 Carris, L. H., 811 (12).
 Carroll, Ora M., 1723.
 Carter, E., 794.
 Carter, G. E., 1664 (16).
 Carver, T. N., 802 (3), 993 (1), (3).
 Cary, C. P., 177 (10).
 Casey, Frank, 1612.
 Castagnola, G. S., 1610.
 CATHOLIC CHURCH. *See* ROMAN CATHOLIC CHURCH.
 Catholic educational association, 1653.
 Cattell, J. McK., 204, 685, 1784.
 Cauer, Friedrich, 1861.
 Cellérier, L., 831.
 Central association of science and mathematics teachers, 392.
 Chabot, Charles, 205.
 Chadsey, C. E., 1662 (9).
 Chadwick, F. E., 206.
 CHADWICK, F. E., 675.
 Chamberlain, A. H., 983, 1309 (11).
 Chamberlain, C. W., 1663 (3).
 Chancellor, W. E., 177 (6), 207, 596, 721 (13), 1069, 1338, 1571, 2000.
 CHANG'AN, CHINA. UNIVERSITY, 2073.
 Chapin, H. S., 1343.
 Chapman, Emily, 1889 (24).
 CHARACTER BUILDING, 23, 681 (6), 829 (3), 1663 (16), 1902.
 Charters, W. W., 824 (8).
 CHASSAVANT METHOD, 53.
 Chater, A. G., 1614.
 CHAUTAUQUA, 1273, 1280, 1281.
 Chauvet, Paul, 934.
 CHEMISTRY, home work, 392 (3); teaching, 1810, 1961.
 Cheney, Howell, 2042.
 CHICAGO. UNIVERSITY, affiliated high schools, 1373; University high school, 2045.
 Chicago. University, Francis W. Parker school, 1506.
 CHILD LABOR, 180 (9), 813, 1144, 1146, 1150, 1153.
 CHILD STUDY, 26-31, 118, 120, 177 (15), 216-221, 428-432, 605-619, 721 (23), 883-909, 876, 1338-1342, 1494-1505, 1699-1715, 1910-1925.
 CHILD WELFARE, 129-130, 336-338, 397 (4), 521, 743-744, 819 (16), 1144-1153, 1304 (10), 1612-1614, 1820.
 CHILDREN, country v. city, 1592; diseases, 721 (9)-(10), 724, 1803, 1806, 2022; education, 177 (54), 397 (3), 1304 (7) (8), 1306 (5) (13), 1968; feeding, 309, 1102-1103, 1420, 1583, 1657 (23), 2059; health, 1304 (11), 1657 (11); in Chicago stockyards, 721 (8); mortality, 721 (19); speech defects, 1804; vocabularies, 883.
 CHILDREN'S LITERATURE 166, 177 (73), 829 (3), 1287, 1291, 1651, 2067.
 Childs, W. L., 325.
 CHINA, agricultural education, 773; education, 407, 836; industrial education, 758.
 Chisholm, Catherine, 785.
 Cholmeley, R. F., 265.
 Chomley, V. L., 1678.
 CHRISTIAN STUDENT MOVEMENT, 1805 (2).
 Christie, G. L., 802 (16).
 Chrysler, M. A., 448.
 Chubb, Percival, 41.
 Church, Olive F., 397 (6).
 CHURCH AND EDUCATION, 749, 1161, 1327, 1619. *See also* BIBLE IN SCHOOLS.
 CHURCH COLLEGES. *See* DENOMINATIONAL COLLEGES.
 CHURCH SCHOOLS, 1158, 1301 (17) (18). *See also* PAROCHIAL SCHOOLS.
 CHURCHES. *See* RURAL CHURCHES.
 Churchill, J. A., 1933.
 Churchill, T. W., 1070.
 Churchman, P. H., 1511.
 CINCINNATI, continuation schools, 177 (17), 811 (13); cooperative schools, 1434; public schools, 196; vocational guidance, 543.
 Cincinnati schoolmasters' club, 1019.
 Cincinnati. University, 90.
 CINEMATOGRAPE. *See* MOVING PICTURES.
 CITIES, education, 824 (3) (4), 1592.
 CITY SCHOOL SYSTEMS, 1301 (6), 1410.
 CIVIC EDUCATION, 542, 642, 815 (1), 827 (7), 1237-1241, 1304 (5), 1455-1456, 1657 (10), 1666 (18), 1857-1858, 2065-2068.
 CIVIC UNIVERSITIES. *See* UNIVERSITIES AND COLLEGES, city.
 CIVICS, teaching, 177 (7), 801 (9), 807 (3)-(5), 825 (6), 827 (24), 1657 (25) (26), 1733.
 Clair, Helen L., 1431.
 Clark, Bertha M., 890.
 Clark, C. P., 1512.
 Clark, Edna O., 1972 (3).

- Clark, H. F., 202.
 Clark, Harry, 805 (6).
 Clark, L. P., 608.
 Clark, R. McC., 2025.
 Clark, T. A., 928.
 Clark, Taliaferro, 1304 (11).
 Clark, W. A., 1475 (1).
 Clarke, C. P. S., 1159.
 Clarke, J. E., 525.
 CLASSICAL EDUCATION. *See* LIBERAL EDUCATION.
 CLASSICS, teaching, elementary grades, 1899 (15).
 Claxton, P. P., 176 (12), 177 (30), 394 (2), 587, 824, 1301, 1304 (1), 1471 (12), 1664 (1) (5), 1888 (9).
 Cleary, Frances, 1475 (3).
 Clement, E. H., 795.
 Clendenen, T. C., 14.
 CLEVELAND, OHIO., medical inspection, 1419.
 Clewell, H. E., 778.
 Clifton, H. T., 1003.
 CLINICS, school, 722, 1110.
 Clopper, E. N., 813 (2).
 Close, Egbert, 203.
 CLUBS, 815 (8). *See also* AGRICULTURAL CLUBS, BOYS' CLUBS; CANNING CLUBS.
 Coarney, V. de Vivaldi-, 1199.
 Coates, T. J., 1658 (8).
 Cobb, Ernest, 808 (2).
 Cocks, O. G., 1409 (3).
 Cody, Sherwin, 1176.
 COEDUCATION, 155, 157, 369, 562, 786, 789, 815 (1); 1249, 1252, 1663 (3), 2070. *See also* COORDINATE COLLEGES; SEGREGATION.
 Coffeen, E. L., 814 (1).
 Coffey, R. V., 1656 (15).
 Coffin, J. H., 331.
 Coffman, Bertie, 398 (2).
 Coffman, L. D., 177 (19), 178 (3), 181 (2), 435.
 Coggeshall, Thomas, 476.
 Cohn, G., 280.
 Cohn, Konrad, 721 (20).
 Colt, H. L., 721 (19).
 Cole, P. R., 1177.
 Colebank, G. H., 546.
 Coleman, N. F., 320.
 College entrance examination board, 1785.
 COLLEGE ENTRANCE REQUIREMENTS, 97, 176 (10) (38) (53), 805 (1), 808 (3), 1662 (8), 1785.
 COLLEGE LIFE. *See* COLLEGE STUDENTS.
 COLLEGE OF THE CITY OF NEW YORK, 2068 (6) (8).
 COLLEGE PRESIDENTS, 176 (44).
 COLLEGE PROFESSORS, 176 (14), 1021, 1040, 1048, 1782.
 COLLEGE STUDENTS, 88, 695, 819 (20), 1050, 1058, 1065, 1391, 1662 (5)-(7), 1786.
 COLLEGES. *See* UNIVERSITIES AND COLLEGES.
 Collier, T. F., 5 (5).
 Collins, E. W. Bagster-, 1766 (11).
 Collins, J. V., 392 (7), 488.
 Collins, V. L., 1038.
 COLORADO, health departments, 177 (64); rural schools, 1973; vocational education, 1839.
 Colquitt, O. B., 1664 (8).
 Colson, F. H., 1243.
 Colton, Elizabeth A., 182 (1), 805 (5).
 Coltrane, E. J., 1370 (3).
 COLUMBIA UNIVERSITY, 688; school of journalism, 1235.
 COLUMBUS, GA., industrial education, 819 (14).
 Colwell, N. P., 1301 (3).
 COMMENCEMENTS, county, 1752; rural school, 1889 (10).
 COMMERCIAL EDUCATION. *See* BUSINESS EDUCATION.
 Commission for the study of the adolescent period, 2039.
 COMMUNITY AND SCHOOL, 542, 820 (4) (5), 828 (2), 830 (3), 859, 1302 (2), 1304 (8), 1306 (10) (11), (15), 1307 (2), 1311 (12), 1471 (2) (13)-(15), 1656 (5), 1657 (8) (26), 1658 (4) (19), 1661 (4), 1665 (8), 1899 (12).
 COMMUNITY CENTERS. *See* RECREATION CENTERS; SCHOOLS AS SOCIAL CENTERS.
 COMPOSITION. *See* ENGLISH LANGUAGE, composition.
 COMPOSITION SCALES, 233, 1709, 1913.
 COMPULSORY EDUCATION, 107, 379, 569, 577, 1075, 1657 (14); bibliography, 577 (VI); continuation schools, 180 (10), 752 (3).
 Comstock, Anna B., 228, 984.
 Comstock, Sarah, 384.
 CONCORD SCHOOL OF PHILOSOPHY, 1085.
 Condon, R. J., 177 (17), 1434.
 Conference for education in the South, 1471; Committee on household management, 1471 (1).
 CONGRES INTERNATIONAL D'ENSEIGNEMENT MÉNAGE, 1215.
 CONGRES NATIONAL DE LA FÉDÉRATION FÉMINISTE - UNIVERSITAIRE, 300.
 Connolly, C. B., 827 (11).
 Connolly, Louise, 2066.
 Conover, Milton, 1558.
 Conrad, Edward, 393 (2).
 CONSOLIDATION OF SCHOOLS, 267, 304 (7), 828 (3), 990, 992, 999, 1758, 1763, 1899 (11). *See also* RURAL SCHOOLS.
 Constant, F. H., 817 (12).
 CONTINUATION SCHOOLS, 177 (7), 180 (10), 346, 374-375, 379, 571, 573, 752 (3), 798-800, 811 (11) (13), 1272, 1274-1275, 1277, 1486, 1665 (12), 1834.
 Cook, F. L., 1889 (4).
 Cook, H. R. M., 1071, 1887 (2).
 Cook, J. W., 815 (3), 1963.
 Cook, W. A., 920, 1976.
 COOK COUNTY, ILL., rural schools, 73, 1541.
 Cooley, E. G., 2084.
 Cooley, R. L., 1275, 1435, 1445 (1).
 Coombs, F. E., 43.
 Coon, C. L., 1661 (12).
 Cooper, C. S., 1575, 1820, 1679, 1688, 1811, 1995.
 Cooper, E. N., 1321.
 Cooper, V. A., 1306 (18).
 COOPERATIVE SYSTEM OF EDUCATION. *See* PART-TIME EDUCATION.
 COORDINATE COLLEGES, 159, 559, 818 (3). *See also* COEDUCATION; SEGREGATION.
 COORDINATION OF STUDIES. *See* CORRELATION OF STUDIES.
 Cope, Ellen, 780.
 Cope, H. F., 131.
 Copeland, E. B., 1513.
 Corbin, A. E., 812 (2).
 Corbin, Alice M., 428, 827 (15).
 CORDA FRATRES, 1655.
 Cordery, E. E., 1514.

Cornell, W. S., 829 (7).
 CORNELL UNIVERSITY. VETERINARY COLLEGE, 150.
 CORPORAL PUNISHMENT, 704.
 CORPORATION SCHOOLS, 811-812.
 CORRELATION OF STUDIES, 18, 682.
 CORSON, O. T., 11, 1666 (5).
 CORWIN, E. H. Lewinski, 1110.
 CORWIN, R. W., 177 (29) (64).
 COSMOPOLITAN CLUBS, 1056.
 COSMOPOLITAN HIGH SCHOOLS, 177 (38).
 COTTON, F. A., 332.
 COUFFER, U. G., 402.
 COULTER, J. G., 44, 229.
 COULTER, V. C., 1576.
 COULTON, G. G., 183.
 COUNCIL OF church boards of education in the United States, 809.
 COUNCIL OF teachers of English, 647.
 COUNTRY CHURCHES, 665, 967.
 COUNTRY LIFE. *See* RURAL LIFE.
 COUNTY HIGH SCHOOL, 1657 (13).
 COUNTY LIBRARIES, 1282, 1471 (19).
 COUNTY SCHOOL UNIT, 824 (8), 2003.
 COURSE OF STUDY. *See* CURRICULUM.
 COURTS, S. A., 609.
 COURTS TESTS, 301.
 COURTNEY, Janet E., 154.
 COUSINS, Kathleen G., 1770.
 COVEY, G. H., 1888 (2).
 COWAN, Elizabeth L., 1657 (24).
 COWLES, Julia D., 620.
 COXHEAD, G. E. S., 929.
 CRABBE, J. G., 1658 (5).
 CRABTREE, J. W., 815 (10), 1020, 1380.
 CRAFTS, W. F., 2036.
 CRAGUM, J. B., 1515.
 CRAICK, W. A., 281.
 CRAIG, Clara E., 453.
 CRAIGHEAD, E. B., 177 (43), 403.
 CRAFT, Sir Henry, 1406.
 CRAIN, C. M., 612.
 CRAMPTON, C. W., 501, 721 (12), 1416.
 CRANE, A. G., 826 (9).
 CRAWSHAW, F. D., 532, 1436.
 CRETE, NEBR., domestic science plan, 364.
 CRIPPLES, education, 163, 1266, 1269, 1869; physical education, 2026.
 CROCHERON, B. H., 965.
 CRONE, F. L., 581.
 CROSSFIELD, R. H., 1657 (5).
 CROSSWELL, J. G., 1766 (6).
 CROWLEY, R. H., 308, 502.
 CRUCHET, René, 1039.
 CRUCKSHANK, L. D., 722.
 CRUMP, A. B., 1886 (3).
 CUBBERLEY, E. F., 63, 190, 253, 700 (6), 1072, 1766 (4).
 CULTER, H. M., 64.
 CULTURAL EDUCATION. *See* LIBERAL EDUCATION.
 CULTURE, 701 (3), 880; French, 1892.
 CUMMINS, Patrick, 1653 (2).
 CUMMINS, R. A., 660, 2078.
 CUNLIFFE, J. W., 589.
 CUNNINGHAM, J. H., 1583.
 CURRENT EDUCATIONAL CONDITIONS, 9-12, 189-201, 401-412, 585-598, 835-854, 1304 (6), 1320-1328, 1480-1487, 1653 (7), 1657 (1)-(3), 1674-1683, 1891-1897.

CURRICULUM, 177 (13) (19) (20) (22), 463, 700' (4), 712, 815 (12), 819 (21), 865, 1309 (1), 1413, 1534, 1682 (2)-(4), 1796; elementary schools, 823 (9), 1098, 1835, 2002; high schools, 176 (10), 177 (40), 1001, 1004-1005, 1309 (7), 1578, 1664 (11), 1764-1765, 1767, 1769; kindergartens, 1309 (8); normal schools, 177 (48); rural schools, 1306 (21); universities and colleges, 827 (19), 2032.
 CURTIS, Elmore W., 1689.
 CURTIS, Fanniebelle, 175 (3).
 CURTIS, H. S., 65, 458, 511, 1126.
 CURTIS, H. S., 327.
 CUTTEN, G. B., 2032.
 CUTTING, R. F., 2068 (2).
 CYCLOPEDIAS, educational, 6.

D.

DABNEY, C. W., 90, 176 (5), 815 (7), 1021.
 DADACHANJI, K. K., 1584.
 DADISMAN, S. H., 66, 394 (7).
 DAKIN, W. S., 1550.
 DALLENBACH, K. M., 887, 1406.
 DALLY, J. F. H., 610.
 DALTON, W. B., 180 (5).
 DANA, C. L., 2017.
 DANIEL, R. B., 819 (14), 1471 (16).
 DANN, Hollis, 1934.
 DANNER, Vernice E., 1817.
 DARR, Irene, 701 (10).
 DARST, E. L., 1331.
 DARTMOUTH COLLEGE, 285, 1792.
 DATCHELOR GIRLS' SCHOOL, CAMBERWELL, ENG., 563.
 DAU, W. H. T., 1301 (17).
 DAVENPORT, Eugene, 802 (6) (12), 1437, 2043.
 DAVENPORT, F. Isabel, 1772.
 DAVIDSON, J. B., 680 (4).
 DAVIDSON, N. J., 91.
 DAVIDSON, W. M., 177 (21).
 DAVIES, G. R., 611.
 DAVIES, Henry, 963.
 DAVIS, Anne, 1203.
 DAVIS, C. O., 1004.
 DAVIS, E. E., 1544.
 DAVIS, G. G., 1266.
 DAVIS, J. B., 2054.
 DAVIS, J. E., 565, 790.
 DAVIS, J. N., 670, 723.
 DAVIS, Jackson, 819 (12).
 DAVIS, T. S., 397 (6).
 DAY, Clive, 45.
 DAY, Mary B., 2067.
 DAYTON, Roy, 1322.
 DAYTON, O., public schools, 1068.
 DAYTON, Ohio. Bureau of municipal research, 1068.
 DEAF, education, 372, 792-794, 1260-1264, 1301 (21), 1462-1464, 1643-1645, 1653 (19), 1868-1869.
 DEALEY, W. L., 1148.
 DEAN, A. D., 347, 821, 752 (3), 825 (4), 1178.
 DEARBORN, G. V. N., 1935.
 DEARLE, N. B., 1832.
 DEAS, J. A. C., 371.
 DEBATING, interscholastic, 236, 449, 1656 (16).
 DECORATION. *See* SCHOOLROOM DECORATION.
 DEFECTIVES, 825 (7), 1265-1270, 1646-1647, 2076-2083. *See also* BLIND; CRIPPLES; DEAF; EXCEPTIONAL CHILDREN; FEEBLE-MINDED.

- Deffenbaugh, W. S., 577 (1), 701 (4), 714, 1073.
 De Gellecke, G. J., 1666 (14).
 DEGREES, 181 (1), 805 (5), 1388.
 DE KALB TOWNSHIP HIGH SCHOOL, ILL., 760.
 De Land, Fred, 1260.
 DELINQUENCY, 161, 797, 814, 1301 (23), 1653 (9), 1798, 1823, 2076-2083.
 Demeny, G. E. J., 736.
 DEMOCRACY AND EDUCATION. *See* EDUCATION AND DEMOCRACY.
 DEMONSTRATION SCHOOLS, 1658 (10), 1988.
 DENMARK, education, 387, 1631, 1879; schoolhouses, 1580. *See also* FOLK HIGH SCHOOLS.
 Denniston, L. N., 811 (3).
 DENOMINATIONAL COLLEGES, 525, 826 (2), 1165, 1471 (8) (9).
 DENOMINATIONAL SCHOOLS. *See* CHURCH SCHOOLS; PAROCHIAL SCHOOLS.
 Dent, Lillian M., 971.
 DENTAL EDUCATION, 783, 1225, 1301 (4), 1472, 2062.
 DENTAL HYGIENE, 721 (20) (21), 119, 1105.
 DEPENDENT CHILDREN, 814, 2080.
 Depp, Nettie B., 1658 (24).
 DESIGNING, 1350, 1665 (4).
 DESTITUTE CHILDREN. *See* DEPENDENT CHILDREN.
 Deutscher ausschuss für technisches schulwesen, 1179.
 Deutscher kongress für jugendbildung und jugendkunde, 1699.
 Dewey, John, 454, 752 (2), 831 (3), 1706 (15), 2044.
 DEWEY, JOHN, 1661 (7).
 Deyoe, A. M., 1656 (2).
 Diamond, Thomas, 1666 (17).
 Dick, Mrs. Fred, 1304 (3).
 Dick, William, 1887 (3).
 Dickey, C. E., 701 (6).
 Dickey, Frances M., 810 (5).
 DICKINSON HIGH SCHOOL, JERSEY CITY, 468.
 Dickinson, Marguerite S., 921.
 DIDACTICS. *See* TEACHING.
 DIETETICS, teaching, 1108.
 Dillard, Anna, 1658 (16).
 Dillard, J. H., 1160.
 Dillaway, T. M., 1098.
 Dillon, J. A., 1653 (11).
 Dimmitt, Roy, 820 (4).
 DIPLOMATIC TRAINING, 176 (8).
 DIRECT METHOD. *See* LANGUAGE TEACHING, direct method.
 Directory, educational, 2091.
 DISCIPLINE, 307, 714, 716. *See also* FORMAL DISCIPLINE; SCHOOL MANAGEMENT.
 Dix, E. L., 1658 (9).
 Dixon, S. G., 827 (5).
 Dobbs, Ella V., 1661 (6).
 Dock, George, 1660 (1).
 Dodd, A. E., 752 (14).
 Dodge, R. E., 230.
 Dodson, E. C., 823 (15).
 Dole, N. H., 231.
 D'Oller, Kathleen, 1801.
 Doll, E. A., 567, 2081.
 DOMESTIC SCIENCE, 142, 177 (58), 361-364, 545-547, 752 (12), 777-782, 819 (17), 823 (5), 1215-1217, 1258, 1303 (3), 1450, 1471 (18), 1634 (16), 1656 (10) (12) (14), 1657 (22), 1658 (18), 1665 (10) (11), 1850-1851, 1889 (17), 2058-2060; bibliography, 1293.
 Donnelly, T. E., 811 (5).
 D'Ooge, B. L., 1516.
 Dooley, C. R., 811 (8).
 Dorsey, Mrs. Susan M., 177 (42).
 Doster, J. J., 757, 805 (2).
 Dougherty, N. F., 1628.
 Doughty, W. F., 2001.
 Douglass, H. R., 1797.
 Doumic, René, 1892.
 Dow, A. W., 1766 (15).
 Downes, F. E., 827 (8).
 Doyne, J. J., 661, 700 (7).
 Dragshjelm, Hans, 1631.
 Drake, Durant, 1825.
 Drake, E. H., 2010.
 DRAMA, university, 1312.
 DRAMATICS IN SCHOOL, 1639.
 DRAPER, A. S., 399, 1302 (4) (5).
 Draper, E. G., 92.
 DRAWING, 246, 964, 1295, 1665, 1943.
 Dresslar, F. B., 662, 820 (3), 1301 (19), 1884.
 Dressler, H., 436.
 Driggs, F. M., 1464.
 Drummond, Margaret, 2077.
 Drummond, W. B., 2077.
 Duffy, Frank, 752 (5).
 Dugan, W. G., 701 (8).
 Dugas, L., 631.
 Duggan, M. L., 1971.
 Duggan, S. P., 2068 (8).
 Dumville, Benjamin, 1339.
 Dunbar, Alice M., 808 (6).
 Duncan, C. S., 1725.
 Duncan, M. H., 1180.
 Duncan, R. K., 1181.
 Duniway, C. A., 176 (8), 177 (44).
 Dunn, A. W., 737, 801 (9), 2065.
 Durrell, C. E., 768.
 Dutton, S. T., 106.
 Dyer, F. B., 702.
 Dyer, Helen L., 326.
 Dyer, W. A., 996, 1182, 1213, 1276, 1755.
 Dykema, P. W., 1517, 1936.
 Dynes, J. J., 1063.

E.

- Eakins, Martha, 1660 (8).
 Earhart, Will, 1883.
 Earle, S. C., 1346, 1937.
 Earp, E. L., 987.
 EAST TENNESSEE STATE NORMAL SCHOOL, 986.
 Eastman, W. R., 385.
 Eckles, Isabel L., 254.
 Eckman, S. W., 2 (2).
 ECONOMICS, teaching, 1352, 1739; rural, bibliography, 802 (1).
 ECONOMY OF TIME. *See* CURRICULUM.
 EDGEWORTHS, 1317.
 Edmonds, Mary, 1667 (25).
 Edson, A. W., 1074.
 EDUCATION. *See* CURRENT EDUCATIONAL CONDITIONS; HISTORY OF EDUCATION.
 EDUCATION AND BUSINESS, 5 (4), 365 (4), 811 (2).
 EDUCATION AND CITIZENSHIP. *See* CIVIC EDUCATION.
 EDUCATION AND DEMOCRACY, 177 (9), 827 (16), 1079, 1658 (11).

EDUCATION AND LIFE. *See* **EDUCATION AND SOCIETY.**

EDUCATION AND POLITICS, 291, 1888 (11).

EDUCATION AND SOCIETY, 5 (6), 821 (2), 824 (1), 823 (10), 825 (2), 1661 (1), 1899 (14).

EDUCATION AND THE STATE, 824 (5), 1406, 1412.

EDUCATION AND THE COMMUNITY. *See* **COMMUNITY AND SCHOOL.**

EDUCATION AND THE PRESS, 1658 (1).

EDUCATION EXTENSION, 4 (2), 65, 374-379, 571-573, 680 (4) (6), 778, 798-800, 815 (8), 1271-1281, 1466, 1870-1871, 2084. *See also* **UNIVERSITY EXTENSION.**

Educational directory, 2091.

EDUCATIONAL MEASUREMENTS, 828, 909 (3), 1661 (11), 1714, 1911, 1924.

EDUCATIONAL PSYCHOLOGY, 26-31, 216-221, 417, 428-432, 605-619, 883-909, 920, 935, 1333-1342, 1494-1505, 1699-1715, 1910-1925.

EDUCATIONAL RESEARCH, 1790.

EDUCATIONAL STANDARDS. *See* **EDUCATIONAL MEASUREMENTS; STANDARDIZATION.**

EDUCATIONAL SURVEYS. *See* **SURVEYS, educational.**

EDUCATIONAL TESTS. *See* **MENTAL TESTS.**

EDUCATORS, 1302 (12). *See also* **BIOGRAPHY.**

Edwards, C. L., 628.

Edwards, H. R., 1306 (13).

Edwards, R. A., 1657 (20).

EFFICIENCY, 99, 177 (27), 295, 396 (7), 487, 823 (2), 830 (2), 1437, 1656 (1), 1662 (1), 1664 (1), 1666 (8), 1831, 1889, (6) (21), 1904.

EFFICIENCY TESTS. *See* **MENTAL TESTS.**

Efinger-Raymond, Frances, 177 (81).

Egan, Rose F., 1518.

Egerton, F. C. C., 861.

Eggleston, J. D., 1661 (1) (17).

Ehler, G. W., 734 (1), 738, 1127.

Elselmeier, J., 673.

ELECTIVE SYSTEM, colleges, 104; elementary schools, 305; high schools, 1395 (6).

ELEMENTARY EDUCATION, 177 (19) (36), 297, 418, 801 (1), 815 (4), 819 (15), 1306 (3), 1307 (6).

ELIMINATION, 109, 271, 820 (6), 1093, 1150, 1306 (7). *See also* **BACKWARD CHILDREN; RETARDATION.**

Elliot, C. W., 191, 208, 294, 404, 1367, 1457.

Elliot, T. D., 1821.

ELKHART, IND., home work, 2010.

Elliot, E. C., 124, 181 (5), 499, 700 (6), 703, 1306 (5) (17), 1666 (8).

Elliot, H. S., 132.

Ellis, D. C., 819 (7).

Ellwood, C. A., 1075.

ELMIRA, N. Y., school savings plan, 499.

Elmelle, R. C., 1417.

Elting, Howard, 364.

Emerson, R. H., 398 (1).

Emerson, E. C., 1183.

Emerson, Mabel I., 209.

EMPLOYEES, selection, 811 (2).

ENERGY, 1309 (9).

ENGINEERING EDUCATION, 811 (7), 817, 1193; extension, 680 (4)-(6).

ENGINEERING EXPERIMENT STATIONS, 680 (4).

ENGLAND, child welfare, 1150-1151; continuation schools, 573; education, 12, 180, 195, 265, 388, 457, 547, 593, 781, 850, 1323, 1327, 1974; military training, 1243; prevocational education, 539; school hygiene, 308, 502; vocational education, 761.

Engleman, J. O., 1989.

ENGLISH LANGUAGE, 821 (7), 1532; college requirements, 651; composition, 39, 177 (24) (39), 225, 233, 393 (4), 924-933, 1309 (16), 1527, 1653 (11), 1658 (21), 1717, 1725, 1727, 1735, 1945-1946, 1955; teaching, 177 (8), 437, 647, 801 (6), 808 (6), 826 (12), 827 (27) (38), 1176, 1345-1347, 1349, 1355-1356, 1519, 1528-1529, 1668 (21), 1734, 1736, 1889 (24), 1937, 1967. *See also* **LITERATURE; ORAL ENGLISH.**

Epps, Mrs. Claude, 629.

Estill, H. F., 1664 (13).

ETHICAL CULTURE SCHOOL, NEW YORK, 406.

ETHICS, 134, 745-746, 1617-1618, 1886 (1).

ETIQUETTE, 827 (3).

Eubank, R. S., 1658 (10).

Eucken, Rudolf, 862.

EUCKEN, RUDOLF, 420.

EUGENICS, 180 (8), 1599.

EUROPE, education, 1301 (34) (38), 1766 (3); medical education, 1229.

EUROPEAN WAR AND EDUCATION, 1676-1677, 1680, 1682, 1788, 2031.

Evans, C. E., 67, 255, 1664 (3).

Evans, H. F., 1620.

Evans, H. R., 1301 (25), 1632, 2092.

Evans, L. B., 819 (3), 1076, 1473 (8).

Evans, Mary A., 1637.

EVENING SCHOOLS, 572, 752 (8), 800, 1870, 2072.

Everall, Amy F., 814 (5).

Everitt, G. B., 811 (9).

Ewer, B. C., 681 (7).

Ewerhardt, F. H., 2026.

Exall, Henry, 1657 (9).

EXAMINATIONS, 151, 177 (13), 494, 1080, 1575, 1653 (13), 1664 (15), 1888 (14) (15), 2013. *See also* **MENTAL TESTS.**

EXCEPTIONAL CHILDREN, 161-164, 177 (77), 203, 427, 567-570, 606, 619, 796-797, 825 (7), 1265-1270, 1301 (20), 1306 (9). *See also* **BACKWARD CHILDREN; DEFECTIVES.**

EXCHANGE TEACHERS. *See* **INTERNATIONAL EXCHANGE OF TEACHERS.**

EXHIBITS, rural schools, 984.

EXPERIMENT STATIONS, engineering, 680 (4).

EXPERIMENTAL PEDAGOGY, 17, 829 (6), 897, 902.

EXPERIMENTAL PSYCHOLOGY, 1027.

EXTENSION, EDUCATION. *See* **EDUCATION EXTENSION; UNIVERSITY EXTENSION.**

EYE, diseases, 180 (3), 503, 1111.

F.

Fairchild, A. H. R., 923, 1938.

Fairchild, E. T., 177 (1).

Fairchild, R. W., 1726.

Fairclough, H. R., 1939.

Fairfield, Letitia, 1421.

Faithful, Lillian M., 1519.

FAR EAST, education, 191, 208.

Fargo, Lucile F., 177 (76).

Faris, J. T., 342.

FARM LIFE. *See* **RURAL LIFE.**

Farnsworth, C. H., 1766 (15).

Farnum, R. B., 964, 988, 1295.

FARRAGUT SCHOOL, 171.

Farrell, Elizabeth E., 796, 814 (3), 1267.

Farrington, F. E., 348, 1218, 1766 (3).

Farwell, Mrs. Cecilia, 459.

- Farwell, P. T., 68.
 FATIGUE, mental, 617, 891.
 Faughender, M. M., 1657 (10).
 Fauver, Edwin, 739.
 Favrot, L. M., 1886 (2).
 Fay, E. A., 1301 (21).
 Feagin, W. F., 820 (1).
 FEDERAL AID TO MILITARY EDUCATION, 1567.
 FÉDÉRATION FÉMINISTE UNIVERSITAIRE, 392.
 Fee, I. B., 295.
 FEEBLE-MINDED, 1268, 2079, 2081.
 FEEDING OF SCHOOL CHILDREN. *See* CHILDREN, feeding.
 FELDEN SCHOOL, 86.
 Felter, W. L., 1005.
 "FEMINIZATION" OF SCHOOLS, 206, 673, 675.
 Fender, C. W., 1596.
 Ferguson, A. C., 1664 (11).
 Ferguson, Ida M., 1926.
 Ferrell, J. A., 1471 (5), 1539.
 Ferreri, Giulio, 1261, 1644.
 Ferris, W. N., 752 (6).
 Ferry, F. C., 952.
 Fertig, J. W., 819 (2).
 Fess, S. D., 176 (9).
 FICHTE, J. G., 185-188.
 FICTION, 1898; educational value, 1290.
 Field, Jessie, 1471 (14).
 Field, W. S., 752 (17).
 Fields, A. J., 1888 (4).
 Fikenscher, F., 1940.
 FINANCE. *See* SCHOOL FINANCE.
 Finch, W. A., 180 (10).
 Findlay, J. J., 972, 1901.
 Finegan, T. E., 177 (12), 296, 399, 674, 1077, 1302 (3) (6), 1368, 1572, 1888 (1) (6).
 Finkenbinder, E. C., 888.
 Finley, J. H., 192.
 FIRE PREVENTION, 1799.
 Firkins, O. W., 1041.
 Firth, H. W., 701 (13).
 Fischer, Aloys, 522.
 Fischer, M. H., 1559.
 Fish, Susan A., 437.
 Fisher, Dorothy C., 59, 1968.
 Fiske, Annette, 1234.
 Fiske, G. W., 933 (4).
 Fitch, A. P., 1560, 2037.
 FITCHBURG PLAN, 172.
 Fitz Gerald, Cyril, 590.
 Fitzhugh, Thomas, 438.
 Fitzpatrick, Alfred, 591.
 Fitzpatrick, E. A., 969, 1561.
 Fitzpatrick, F. A., 1476.
 Fleming, Ada M., 663.
 Fletcher, J. M., 889.
 Flexner, Bernard, 1613.
 Flexner, Elsie, 1657 (22).
 FLORENCE, ITALY, aid to school children, 1465.
 FLORIDA, education, 393 (1).
 Florida educational association, 393.
 Flower, B. O., 1251.
 Flower, W. P., Jr., 1941.
 Foerster, F. W., 121, 1239, 2038.
 FOERSTER, F. W., 1484.
 Förster, Paul, 1482 (IV).
 Foght, H. W., 387, 990, 1306 (6) (21), 1633, 1879.
 FOLK HIGH SCHOOLS, 578, 1482 (V), 1631-1633, 2084.
 Folkestad, Svein, 1577.
 Fontaine, Jennie M., 550.
 Fontaine, Mary B., 1347.
 Fontègne, Julien, 374-375, 1184.
 Foos, C. S., 1833.
 Foraker, F. A., 1942.
 Forbush, W. B., 1145.
 Ford, G. S., 803 (3), 1283.
 Fordham, H. G., 991.
 FOREIGN LABORERS, education, 591.
 FOREIGN POPULATION. *See* IMMIGRANTS.
 Foresman, Robert, 823 (16).
 FORESTRY, 819 (7).
 FORMAL DISCIPLINE, 1302 (8), 1491.
 Forsberg, A. O., 1306 (15).
 Foster, H. D., 630.
 Foster, N. K., 117.
 Foster, W. T., 727, 1119.
 Fox, F. G., 274, 826 (3).
 Fox, Maude, 1889 (18).
 Frailey, L. E., 612.
 FRANCE, athletics, 589; continuation schools, 1277; education, 20, 340, 589, 707, 810 (6), 839, 854, 1062, 1197, 1232, 1301 (35), 1377, 1610.
 Francia, Gabriela, 1700.
 Francis W. Parker school, Chicago, 1506.
 Fraser, Kate, 2079.
 FRATERNITIES, college, 681 (4), 1060, 1570; high school, 464.
 Frayser, Mary E., 1471 (1).
 Frayser, Nannie L., 133.
 Fraser, N. L., 930, 1727.
 Frazier, F. B., 819 (19).
 Frederick, J. C., 1657 (15).
 FREE LECTURES, 1279.
 FREEDOM OF TEACHING. *See* ACADEMIC FREEDOM.
 Fremantle, F. E., 1340.
 French, Kathryn M., 1889 (13).
 French, O. E., 1656 (9).
 French, R. L., 1657 (11).
 French, T. E., 817 (4).
 FRENCH LANGUAGE, teaching, 1353, 1511.
 FRESNO HIGH SCHOOL, 1011.
 FRESNO OPEN-AIR SCHOOL, 1099.
 Freudenberger, Norman, 824 (9).
 Friedlaender, Israel, 1301 (16).
 Friend, L. L., 578, 664.
 FROEBEL, F. W. A., 763, 829 (5), 834, 1670, 1916.
 Frost, W. G., 1471 (15), 1658 (2).
 Froula, V. K., 1826.
 Fürle, Friedrich, 1701.
 Fürst, Moritz, 2020.
 Fuess, C. M., 266.
 Fullan, M. T., 1427.
 Fuller, A. C., Jr., 743, 1656 (5), 2002.
 Fuller, R. J., 140.
 Fulton, M. G., 1786.
 Fulton, R. I., 631.

G.

- Gaines, I. J., 821 (7).
 Gale, Zona, 1252.
 Galloway, B. T., 802 (5), 1804 (10).
 Galloway, Lee, 811 (10).
 Galloway, T. W., 177 (63), 1809.
 Galpin, C. J., 1972 (1).

GAMES, 250. *See also* PLAY; RECREATION.

Gardier, A., 1134.

GARDENS, home, 774. *See also* SCHOOL GARDENS.

Gardner, J. H., 1787.

Gardner, Catharine, 1656 (13).

Garrette, M. W., 701 (12).

GARY, IND., public schools, 197, 596, 844, 1204, 1296, 1666 (11), 1871.

Gasquet, A., 1277.

Gathany, J. M., 808 (4), 1344.

Gearhart, May, 177 (56).

Gehrrens, K. W., 810 (3), 1311 (6).

Geiger, F. P., 1311 (13).

GEOGRAPHY, 40, 230, 243, 247, 645, 700 (2), 949-951, 1743. *See also* PHYSIOGRAPHY.

GEOMETRY, 644.

GEORGIA, education, 1473 (1); school-book question, 491.

Georgia. University. Peabody school of education, 1135.

Gerend, M. M., 1653 (18).

Gerhard, E. S., 46.

GERMAN LANGUAGE, college entrance requirements, 1520; teaching, 46, 945, 1353, 1521, 1658 (22) (23).

GERMAN SCHOOLS, 598.

GERMAN SOUTH AMERICAN INSTITUTE, 102.

GERMANY, business education, 1218, 1452; colonies, education, 1461; continuation schools, 374, 375, 571, 573, 1272, 1274; compulsory education, 577 (III); education, 416, 845, 847, 854, 1301, (36), 1483, 1484; higher education, 100, 280, 1039, 1788; industrial education, 160, 1179, 1197; medical education, 1227; school hygiene, 1104, 1114-1115; secondary education, 1307 (8). *See also* PRUSSIA.

GERMANY. IMPERIAL SCHOOL COMMISSION, 411.

Gerson, Oscar, 963.

Gerwig, G. W., 1834, 1887 (5).

Gibson, J. A., 701 (3).

GIFTED CHILDREN. *See* EXCEPTIONAL CHILDREN; PRECOCITY.

Gilbert, I. B., 572.

Gilbreath, S. G., 986.

Giles, F. M., 769, 1374.

Gill, Laura D., 818 (3), 1253.

Gill, W. L., 110-111.

Gillet, M. S., 1615.

Gillette, J. M., 47, 826 (5).

Gillin, J. L., 1128.

Gilman, B. I., 1301 (12).

Gilmour, A., 1105.

GIRARD COLLEGE, 691.

GIRLS, 177 (42), 814 (5), 1637-1638, 2063. *See also* WOMAN.

GIRLS' CLUBS, 545. *See also* AGRICULTURAL CLUBS.

GIRTON COLLEGE, 98.

Glade, E. J., 1309 (5).

Glenn, C. B., 819 (24).

Glenn, E. R., 1736.

Glynn, F. L., 177 (72), 1885.

Goddard, H. C., 1042.

Goddard, H. H., 1647, 1702.

GODDARD, H. H., 2062.

Godin, Paul, 613.

Götte, G., 1248.

Goff, C. R., 1899 (22).

Goggin, D. J., 819 (8).

Goldmark, Pauline, 2063.

Goldsborough, P. L., 395 (1).

Goldwasser, I. E., 305.

Goodell, T. D., 1766 (10).

Goodhue, Stoddard, 503.

Goodwin, F. P., 543.

Gordon, Hannah R., 1311 (12).

Gordy, U. L., 397 (6).

Gottlieb, Ruth A., 1438.

GRADING, 5 (2), 283, 496, 670, 717, 817 (6), 823 (14), 2013. *See also* MARKING; PROMOTION OF PUPILS.

GRADUATE STUDY, 95, 684, 803 (1).

GRAFTON HIGH SCHOOL, 546.

Graham, J. W., 439.

GRAMMAR. *See* ENGLISH LANGUAGE, composition.

GRAMMATICAL NOMENCLATURE, 1719.

GRAND RAPIDS, evening schools, 572.

Grant, Cecil, 155, 653.

Grant, Emma B., 394 (5).

Grant, R. H., 811 (1).

Grasset, —, 551.

Graue, —, 1481.

Graves, F. P., 7, 397 (8), 973.

Graves, J. W., 333.

Graves, W. W., 1853.

Gray, H. B., 911, 944, 1242.

Gray, Grace V., 1216.

Gray, J. H., 1439.

Gray, M. D., 632.

Gray, Mary R., 515.

Gray, S. D., 395 (8).

Gray, W. Lou, 1471 (11) (21).

GREAT BRITAIN, continuation schools, 346; education, 1301 (32); naval training, 1242. *See also* ENGLAND.

Great Britain. Board of education, 1204; Office of special inquiries and reports, 107.

GREECE, vocational education, history, 1843.

GREEK EDUCATION, 20.

GREEK LANGUAGE, study, Princeton, 450; teaching, 438, 944, 1965.

Gresley, Horace, 1585.

Green, C. C., 701 (2).

Green, C. R., 1106.

Green, R. P., 819 (6).

Greenstone, J. H., 1477.

Greenwood, Arthur, 118.

Greenwood, Barbara, 177 (31).

Greenwood, J. M., 297, 517, 741, 815 (5), 1205, 1315.

GREENWOOD, J. M., 1313, 1476.

Gregory, J. W., 621.

GRENOBLE. UNIVERSITY, 482.

Gribble, Francis, 93.

Grice, Mary V., 1363.

Griffin, J. T., 1773.

Griffiths, E. H., 1043.

Grimsehl, E., 232.

Grimstead, W. J., 728.

Griswold, Caroline M., 5 (3).

Groff, G. W., 773.

Groevenor, E. A., 477.

Groszmann, M. P. E., 177 (77), 974.

GROWTH, 1294.

Gruenberg, B. C., 770, 1078, 1447, 1774.

Grummann, P. H., 177 (45).

GRUNDTVIG, N. K. S., 1631, 2064.

Grupe, Mary A., 715.

Guardia, J. E., 1418.

Guérard, A. L., 1906.
 Guild, T. H., 48.
 Gulliver, Julia H., 394 (4).
 Gunter, Lueco, 1972 (5).
 Guthrie, B. L., 890.
 Guy, J. R., 819 (11).
 Guyer, M. F., 448.
 GUYMON, OKL., playgrounds, 1817.
 Guysi, Alice V., 1943.
 Gwinn, J. M., 396 (1), 819 (5).
 GYMNASTICS. *See* PHYSICAL EDUCATION.

H.

Haaren, J. H., 1445 (2).
 Hadley, A. T., 478, 681 (2), 1053.
 HADLEY, A. T., 1046.
 Hadley, Clara, 823 (12).
 Hagarty, A. M., 1136.
 Hagenbring-Weissenfels, *Dr.*, 786.
 Hahn, C. W., 122.
 Hahn, H. H., 429.
 Hallmann, W. N., 1835.
 Hall, A. J., 1161.
 Hall, G. S., 216, 935, 1044, 1789, 2023.
 HALL, G. S., 584.
 HALL, H. J., 1646.
 Hall, J. O., 592.
 Hall, Mary E., 1206, 2090.
 Hall, Mildred, 1708.
 Hall, O. E., 62.
 Hall, W. P., 633.
 Hall, W. S., 2024.
 Hall-Quest, A. L., 2011.
 Halleck, R. P., 1658 (21).
 Halleck, Mrs. R. P., 1658 (7).
 Hallock, Constance M., 827 (24).
 Hamilton, F. R., 1977.
 HAMPTON INSTITUTE, 1250.
 HAMPTONSHIRE EXPERIMENT, 457.
 Hancck, M. S., 1137.
 Hancock, Elizabeth H., 559.
 Hand, W. H., 577 (IV).
 Handschin, C. H., 936.
 HANDWRITING, measurement, 906.
 Haney, J. P., 1278.
 Hanifan, L. J., 1756.
 Hanmer, L. F., 177 (4), 2028.
 Hanna, G. W., 826 (7).
 Hanus, P. H., 177 (20), 181 (7).
 Hard, H. M., 552.
 Hardy, I. M., 1661 (8).
 Harkness, Mary L., 560.
 Harlacher, E. H., 349.
 Harlan, C. L., 1990.
 Harley, T. D., 466.
 Harnack, Adolph von, 1680.
 Harper, W. A., 210.
 Harrington, T. F., 2061.
 Harris, Ethel L., 1661 (15).
 Harris, J. L., 1661 (13).
 Harris, R. C., 1006.
 Harrison, Elizabeth, 1882.
 Hart, I. H., 1656 (8).
 Hart, J. K., 94.
 Hart, W. R., 256.
 Hart, W. W., 392 (5).
 Hartog, Marcus, 1045.
 Hartshorn, H. E., 1349.
 Hartwell, E. C., 162.
 Hartwell, S. O., 752 (18).
 HARVARD UNIVERSITY, 103, 296, 479, 548, 689, 1051, 1392, 1566, 1787, 2037.
 HARVARD-NEWTON COMPOSITION SCALES, 233.
 Harvey, Jack, 309.
 Harvey, L. D., 1306 (7), (19), 1350, 1665 (4).
 Harvey, Marie, 398 (3).
 Harvey, P. C., 1351.
 Hassler, Harriot E., 166.
 Hasty, P. S., 1836, 2046.
 Hauck, P., 185.
 HAWAII. HILO BOARDING SCHOOL, 1241.
 Hawes, J. A., 1907.
 Hawkins, L. S., 1209.
 Hawkins, Wilson, 1311 (3).
 Hay, Ian, 1007.
 Haycock, G. S., 372.
 Hayes, Carlton, 807 (1).
 Hayes, D. W., 60, 177 (51).
 Hayes, E. C., 1902.
 Haynes, John, 1352.
 Haythornthwaite, J. P., 686.
 Haywood, Harry, 1659 (4).
 Hazard, Paul, 839.
 HEALTH. *See* HYGIENE.
 HEATING, 114, 1666 (13).
 Heaton, J. W., 1889 (14).
 Hebden, Edwin, 298.
 Heck, W. H., 310, 891.
 Hedger, Caroline, 721 (8).
 Heeter, S. L., 177 (22).
 HEIDELBERG. UNIVERSITY, 284.
 Helen Angela, *Sister*, 1653 (16).
 HELIOTHERAPY, 721 (22).
 Hellems, F. B. R., 480.
 Heller, Harriet H., 1145.
 Heller, Otto, 1389.
 Helms, N. M., 1969.
 Henderson, C. H., 864.
 Henderson, F. C., 811 (2).
 Henderson, J. L., 805 (1).
 Henderson, W. H., 141, 771, 1242, 1665 (7).
 Hendley, Flora L., 1507.
 Hendrick, B. J., 1046.
 Heniger, A. M. H., 528.
 Henke, Flora E., 1665 (10).
 Henmon, V. A. C., 806.
 Henneberg, H., 724.
 Henry, *Brother*, 1653 (9).
 Herbert, Clara W., 1872.
 HEREDITY, 742, 1600, 1666 (1).
 Hermann, Ernst, 327.
 Herron, S. F., 282.
 Hervey, W. A., 1353.
 Herzberg, M. J., 380.
 Hess, W. L., 704.
 Heuser, Ernest, 1729.
 Hessler, Robert, 1596.
 Hetherington, C. W., 1602, 1606, 1766 (19).
 Heuser, F. J. W., 1520.
 Hewitt, Florence H., 675.
 Hlatt, J. S., 397 (1), 1207.
 Hibbard, H. W., 817 (5).
 Hibben, J. G., 95, 684, 803 (1), 804 (2), 1440.
 Hicks, F. G., 2068 (3).

- Hicks, W. E., 1466, 1665 (12).
- HIGH SCHOOL AND COLLEGE, 177 (41), 180 (2), 264, 683, 804, 1017, 1656 (15), 1668 (14); bibliography, 1878.
- HIGH SCHOOL AND ELEMENTARY SCHOOL, 931, 1408. *See also* SIX-AND-SIX PLAN.
- HIGH SCHOOLS, 70, 76-79, 177 (3) (9), 178, 263-264, 268-269, 271-273, 396 (2), 462-469, 669-673, 823 (10), 827 (21)-(28), 1000-1017, 1302 (1) (2), 1372-1373, 1375, 1545-1546, 1657 (8) (19), 1662 (2), 1764-1769, 1975-1982; cosmopolitan, 177 (38); rural, 664, 667, 669, 1658 (9). *See also* JUNIOR HIGH SCHOOLS; SECONDARY EDUCATION; SIX-AND-SIX PLAN.
- HIGHER EDUCATION, 88-105, 177 (43)-(46), 180 (7), 277-290, 475-487, 680-699, 701 (12), 817 (11) (12), 1033-1067, 1301 (2), 1385-1402, 1557-1570, 1782, 1993-1998.
- HIGHER EDUCATION AND BUSINESS, 92, 365 (4)-(6).
- Higsmith, J. H., 1471 (8).
- Hildebrand, F. P., 350.
- Hill, D. H., 1842.
- Hill, D. S., 1497, 1704, 2080.
- Hill, J. J., 408.
- Hill, Mabel, 2066.
- Hill, Patty S., 175 (2), 454.
- Hillegas, M. B., 181 (8), 829 (6) (8).
- HILLEGAS SCALE, 1913.
- Hiller, August, 1887 (1).
- Hilles, C. D., 797.
- HILO BOARDING SCHOOL, HAWAII, 1241.
- Himmelick, R. W., 1665 (6).
- Hines, L. N., 851.
- Hinkle, E. C., 27.
- Hinsdale, Mary B., 787.
- Hinton, R. T., 1658 (20).
- Hippensteel, H. S., 1380.
- Hirschlaff, Leo, 1705.
- HISTORY, college entrance requirements, 808 (3); teaching, 5 (5), 45, 54, 235, 440, 445, 447, 630, 907, 808 (4) (5), 824 (13), 827 (25) (26), 947, 1357, 1360, 1523, 1530, 1657 (26), 1722, 1735, 1742, 1747, 1930, 1940, 1949, 1953-1954, 1959, 2068-2089.
- HISTORY OF EDUCATION, 7-8, 183-184, 400, 581-584, 899, 1312-1319, 1476-1479, 1667-1673, 1890.
- Hoag, E. B., 1107.
- Hodge, G. B., 1301 (26).
- Hodges, T. E., 176 (2).
- Hodges, W. T., 1880.
- Hodgson, Elizabeth, 1551, 1908.
- Hodgson, Geraldine, E. 832.
- Hodgson, Norman, 155.
- Höfler, Alois, 234.
- Hoffman, Adam, 1653 (4).
- Hoffman, U. J., 992.
- Holden, P. G., 177 (57).
- Holgate, T. F., 1662 (7).
- Holland, C. J., 1653 (10).
- Holland, E. O., 177 (35) (60), 823 (10), 1658 (6).
- Holley, C. E., 465.
- Hollingworth, Leta S., 156.
- Hollister, H. A., 1079.
- HOLLY, COLO., domestic science plan, 779.
- Holmes, C. R., 553, 1223 (4).
- Holmes, C. W., 499.
- Holmes, H. W., 654, 829 (4).
- Holmes, I. W., 821 (9).
- Holt, Elizabeth G., 1471 (18).
- Holt, L. E., 1149.
- Holswarth, Charles, 1521, 1944.
- HOME AND SCHOOL, 5 (3), 71, 396 (3), 520, 1134, 1140, 1143, 1304 (2), 1430, 1659 (5). *See also* COMMUNITY AND SCHOOL; PARENT-TEACHER ASSOCIATIONS; SOCIAL ASPECTS OF EDUCATION.
- HOME ECONOMICS. *See* DOMESTIC SCIENCE.
- HOME EDUCATION, 128, 867-868.
- HOME WORK, 112, 827 (22), 1574, 2010; school credit, 177 (17), 782, 819 (24), 822 (2), 1515, 1746.
- HONESTY, training in, 1304 (9).
- HONOR SYSTEM, 827 (18), 1041.
- Hood, Mary G., 729.
- Hood, W. R., 389.
- HOOKWORM DISEASE, 1539.
- Hoopes, L. L., 1812.
- "HOPKINS" REPORT, 647.
- Horn, P. W., 177 (11), 1552.
- Horne, C. F., 1279.
- Horner, H. H., 1080, 1302 (4), 1888 (14).
- Hosie, J. F., 177 (8) (39) (73), 801 (6), 1945.
- Hoskinson, J. H., 1657 (17).
- Hosmer, Millicent, 1129, 1813.
- Hossann, K., 440.
- Hostettler, C. E., 823 (6).
- Hotchkiss, H. V., 490.
- House, Kate C., 1323.
- Howard, L. Pearl, 373.
- Howe, F. C., 912.
- Howe, O. H., 15.
- Howe, S. B., 808 (5).
- Howe, S. E., 1328.
- Howell, H. B., 1522.
- Howland, Sarah M., 193, 406.
- Hubbard, J. M., 840.
- Huddleston, T. F. C., 1243.
- Hughes, C. E., 1790.
- Hughes, H. F., 1099.
- Hughes, M. B., 811 (4).
- Hughes, R. C., 809 (3), 1162.
- Hughes, R. M., 176 (3), 1663 (1).
- Hull, W. R., 352.
- HUMANISTIC EDUCATION. *See* LIBERAL EDUCATION.
- HUMANISTS, 1673.
- HUMBOLDT, WILHELM VON, 786.
- Hume, A. N., 1889 (19).
- Hummel, W. G., 665, 775, 2066.
- Humphrey, Frederick, 1169.
- Humphreys, A. C., 817 (11).
- Humphries, Florence Y., 671.
- Hunt, Caroline L., 1108.
- Hunter, J. R., 830 (3).
- Hurlbert, Dorothy, 1327.
- Hurl, Estelle M., 965.
- Huse, R. H., 747.
- Hutchins, H. B., 1254.
- Hutchinson, J. H., 705.
- Hutchinson, Woods, 1666 (1).
- Hutt, C. W., 2018.
- Hyatt, Edward, 177 (71).
- Hyde, A. L., 283, 817 (6).
- Hyde, G. M., 1219.
- Hyde, W. D., 681 (4).
- HYGIENE, 721, 1666 (5); industrial, 1309 (17), 2048, 2051; mental, 116, 886; oral, 1595; public, 1311 (11), 1471 (6); teaching, 433, 514, 622, 625, 1101, 1106-1107, 1301 (19), 1585, 1855, 1947. *See also* SCHOOL HYGIENE.
- Hylla, E., 157.

L

Ibanez de Ibero, C., 841.
 IDAHO, education, 842.
 Idaho. State board of education, 842.
 Ibert, Sir Courtney, 376.
 ILLINOIS, consolidation of schools, 992.
 Illinois manufacturers' association, 365 (3).
 Illinois music teachers' association, 822, 1654.
 ILLINOIS SCHOOL SURVEY, 1185.
 ILLINOIS SPELLING CONTEST, 244.
 Illinois state teachers' association, 394.
 Illinois. University, 365.
 IMAGINATION, 687, 898.
 IMMIGRANTS, education, 170, 595, 1138; tests, 430, 1894.
 IMMIGRANT CHILDREN, education, 701 (10), 721 (13), 1311 (9).
 IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY, LONDON, 759.
 INDIA, higher education, 277; medical inspection, 1584.
 INDIANA, school law, 173; teachers, 1990; vocational education, 752 (5), 1657 (24).
 Indiana state teachers' association, 823.
 INDIANS, education, 333, 1865-1866.
 INDIVIDUAL INSTRUCTION, 178 (2), 1509.
 INDUSTRIAL EDUCATION, 169, 172, 177 (72), 258, 397 (1), 530-532, 536, 538, 541, 801 (10), 811-812, 814 (1), 817 (3), 827 (10) (11), 829 (1), 1170, 1174, 1177, 1179, 1189, 1195, 1197, 1306 (2) (20), 1311 (10), 1657 (18), 1885. *See also* MANUAL TRAINING; PROFESSIONAL EDUCATION; TECHNICAL EDUCATION; VOCATIONAL EDUCATION.
 INDUSTRIAL FELLOWSHIPS, 1830.
 INDUSTRIAL SCHOOLS, 570.
 INDUSTRIAL SERVICE MOVEMENT, 538.
 INFANT MORTALITY, 721 (19), 1149.
 INSTINCT, 219.
 INSTITUTES, teachers'. *See* TEACHERS' INSTITUTES.
 INTERCOLLEGIATE ATHLETICS, 1127, 1604.
 INTEREST, 885, 1661 (7).
 INTERLAKEN SCHOOL, LAPORTE, IND., 2041.
 International commission on the teaching of mathematics, 953.
 INTERNATIONAL CONCILIATION. *See* PEACE.
 International congress on school hygiene, 726, 829 (7), 1100, 2019.
 International congress of students, 1655.
 International congress on hygiene and demography, 721.
 International congress on the welfare of the child, 1304.
 INTERNATIONAL EXCHANGE OF TEACHERS, 10, 1387, 1562.
 International kindergarten union, 175; Committee on hygiene, 1750.
 INTERNATIONAL PEACE. *See* PEACE.
 International Sunday-school association, 2039.
 IOWA, education, 1656 (2); high school graduates, 268; tuition charges, 711, 1656 (6).
 Iowa state teachers' association, 1656; Committee on vocational education and vocational guidance, 1837.
 Ireland, J. W., 1657 (7).
 IRELAND, education, 1301 (32).
 Israel, Henry, 527, 993.
 ITALY, education, 9, 1390, 1610.

J.

Jackson, Cyril, 593.
 Jackson, E. J. W., 1150.
 Jackson, J. A., 1311 (10).
 Jackson, J. P., 680 (1), 827 (4).
 Jackson, L. F., 1523.
 Jacoby, G. W., 892, 1912.
 Jacoby, Günther, 1047.
 Jaffe, Lisa, 249, 656.
 Jahrbuch der königlichen preussischen auskunftsstelle für schulwesen, 1482.
 James, E. J., 176 (1), 365 (1) (6), 481, 687.
 James, G. F., 181 (6), 823 (2).
 James, Mary E., 788.
 JAPAN, education of woman, 1250.
 Jastrow, Hedwig, 81.
 Jeffrey, G. R., 893.
 Jenkins, Anna I., 177 (64).
 Jenkins, Elizabeth, 394 (5).
 Jenkins, Frances, 177 (34), 470.
 Jenks, A. E., 843.
 Jenks, F. B., 829 (2), 1301 (9).
 Jenks, J. W., 2067, 2069 (7).
 JERSEY CITY. WILLIAM L. DICKINSON HIGH SCHOOL, 468.
 Jessup, W. A., 177 (37), 178 (3), 299, 954, 1382, 1656 (4) (7), 1730.
 Jevons, H. Winesfrid, 1204.
 Jewett, F. G., 1600.
 Jews, education, 1301 (16), 1477.
 Johns, Anna M., 1657 (23).
 JOHNS HOPKINS UNIVERSITY. DEPT. OF ENGINEERING, 1659 (2).
 Johnson, C. D., 819 (25).
 Johnson, D. B., 819 (10).
 Johnson, F. W., 134, 827 (23), 1094, 1616.
 Johnson, Harriet M., 844.
 Johnson, J. F., 1301 (10).
 Johnson, J. H., 1796 (17).
 Johnson, W. F., 1888 (12).
 Johnson, W. T., 1598.
 Johnston, C. H., 417, 1008, 1185, 1301 (24), 1309 (7), 1408, 1764-1765.
 Johnston, J. B., 96.
 Johnston, Ruth M., 1888 (15).
 Johnston, W. D., 167, 803 (2), 2088.
 Joly, Henri, 1390.
 Jonas, Mrs. A. E., 1658 (18).
 Jones, A. L., 97, 1391.
 Jones, E. E. Constance, 96.
 Jones, L. M., 701 (9).
 Jones, T. J., 177 (9).
 Jones, T. L., 1666 (7).
 Jones, W. F., 1889 (25).
 Jordan, Caryl, 740, 1136.
 JORDAN, D. S., 582, 1008.
 Jordan, H. W., 1302 (10).
 Josselyn, H. W., 1978.
 JOURNALISM, high school, 36, 49, 1351; teaching, 1235-1236.
 Joyce, Darrell, 1311 (2).
 Joyner, J. Y., 1309 (1), 1661 (16).
 Judd, C. H., 177 (14) (19), 614, 816 (2), 845, 1009, 1301 (5), 1324, 1979, 2094.
 Julian, Brother, 1653 (5), 1731.
 JUNIOR CIVIC LEAGUES, 1664 (10).
 JUNIOR COLLEGES, 821 (3), 1011.

JUNIOR HIGH SCHOOLS, 466. *See also* SEVEN-YEAR
ELEMENTARY SCHOOL; SIX-AND-SIX PLAN.
JUVENILE COURTS, 1612, 1821.
JUVENILE DELINQUENCY. *See* DELINQUENCY.

K.

Kahn, Joseph, 1862.
KALLIKAK FAMILY, 2062.
Kammradt, F., 186.
Kandel, I. L., 388.
KANSAS, education, 502.
KANSAS CITY, high-school libraries, 1460 (4).
KANSAS. STATE NORMAL SCHOOL, EMPORIA, 415.
Kaylets, Isidore, 1912.
Keane, C. H., 114, 1309 (14).
Kekkel, Heinrich, 1562.
Kekth, J. A. H., 865, 1606 (16).
Keller, P. G. W., 507.
Keller, R. A., 264.
Kellor, Frances A., 1138.
Kelly, D. J., 1302 (3).
Kelly, F. J., 2012.
Kelly, Pearl W., 1471 (20).
Kelly, R. L., 809 (1).
Kelsey, F. W., 441.
Kettie, J. S., 960.
Kemp, W. W., 400.
Kemper, E. H., 828 (12).
Kemsies, F., 622.
Kendall, C. N., 700 (2), 826 (1).
Kennedy, John, 1509.
Kennedy, Joseph, 471, 826 (1) (4).
Kennedy, R. M., 1284, 1471 (19).
Kennigott, A., 988.
Kent, C. F., 138.
Kentucky educational association, 1657-1658.
KENTUCKY. SCHOOL IMPROVEMENT LEAGUE, 461.
Keogh, *See* Alfred, 759.
Keppel, F. P., 683.
Kerr, John, 8.
Kerr, W. J., 680 (2).
Karschenstainer, Georg, 881 (2), 1240, 1483, 1490.
Kesseler, Kurt, 472.
Key, Ellen, 1614.
Keyes, Helen J., 994.
Keyser, C. J., 965.
Kiernan, Frank, 1857.
Kilpatrick, V. E., 1214.
Kilpatrick, W. H., 975, 1661 (3) (7).
Kimball, Grace N., 721 (4).
Kimes, F. M., 353, 533, 1775.
Kinsannon, A. A., 176 (6).
KINDERGARTEN, 57-61, 175 (2) (3), 177 (30)-(38) (35),
451, 454-455, 579, 654, 656, 827 (14), 970-979, 1301 (7),
1306 (3), 1307 (2), 1363-1365, 1473 (7), 1535, 1666 (15)
(16), 1748-1751, 1881-1882.
KINEMATOGRAPH. *See* MOVING PICTURES.
King, Irving, 217, 518, 1010.
King, Roberts, 1298.
Kingsford, Leslie, 2021.
Kingsley, C. D., 177 (3), 804 (4).
Kingsley, Maud E., 1946.
Kinkead, R. G., 1311 (11).
Kinley, David, 365 (5).
Kinnaman, A. J., 1657 (4).
Kirby, Margaret D., 1890 (17).

Kirk, E. C., 1301 (4), 2062.
Kirk, J. R., 306 (4), 1120.
Kirk, *See* John, 1151.
Kirk, W. T., 70, 1540.
Kirkland, J. H., 182 (4), 1048.
Kirkpatrick, E. A., 1304 (4), 1498.
Kironi, Paul, 16.
Kirsch, F. M., 528.
Kitchin, W. C., 823 (4).
Kitchin, W. P. H., 1890.
KITCRAFT, 1442.
Kittson, E. C., 235.
Klapper, Paul, 806, 1524, 1904.
Klein, J. J., 1862.
Klemme, E. J., 730.
Kling, A. B., 1623.
Kloss, Erich, 1947.
Klyuzhev, Ivan, 846.
Knapp, Bradford, 819 (4).
Knauer, Alwin, 1227.
Knell, L. J., 544, 1302 (9).
Knight, E. W., 1669.
Knight, Holford, 1049.
Knopf, S. A., 721 (3) (21).
Knox, C. W., 760.
Knox, H. A., 430.
Koch, T. W., 1285, 1649.
Körner, K., 436.
Kohnky, Emma, 119.
Kohs, S. C., 28, 894.
Kolbe, P. R., 1663 (2), 2068 (10).
KRAEPLIN'S TEST, 893.
Kramer, Mary E., 1541.
Krapp, G. P., 1766 (9).
Krauel, H., 1563.
Kruse, P. J., 1870.
Kühne, A., 359.
Kuehner, Q. A., 307.
Kühnert, Herbert, 634, 1060.
Kuhlmann, F., 1268, 1914.
Kumara Sankar, Vinaya, 215.
Kunkle, Stewart, 407.
Kuno, *Mrs.* Emma E., 1499.
Kurtzworth, H. M., 49.

L.

LABORATORIES, 381.
Lagerstedt, N. G. W., 1301 (33).
LAFAYETTE COLLEGE, 287.
Laird, Sinclair, 17.
Lake, E. J., 1065 (5).
Lake Mohonk conference of friends of the Indian
and other dependent peoples, 2.
Lake Placid conference on international arbitration,
1305.
LAMBRUSCHINI, RAFFAELLO, 1316.
Lamon, H. M., 1210.
Land-grant college engineering association, 680.
LAND-GRANT COLLEGES, 176 (6), 177 (46), 680, 802.
Lane, A. W., 828 (5).
Lane, C. H., 1301 (9).
Lane, W. D., 408, 1186.
Lang, Oslan, 519.
Langstaff, J. B., 689.
LANGUAGE, use at home, 304, 498.
LANGUAGE STUDY. *See* ENGLISH LANGUAGE.

- LANGUAGE TEACHING, direct method, 37, 824 (10), 940-941, 1308 (1), 1664 (12).
- LANGUAGES, ancient, 231, 942-946; modern, 56, 240, 628, 934-941, 1308 (2) (3), 1358-1359, 1526, 1721, 1944, 1996. *See also under name of language.*
- Lanier, H. W., 1928.
- Lanier, Mary J., 951.
- LA PLATA. UNIVERSITY, 1904.
- Laramy, R. F., 397 (5).
- LA SALLE-PERU TOWNSHIP HIGH SCHOOL, ILL., 1909.
- Laselle, Mary A., 1187.
- Lasher, G. S., 1948.
- Latham, R. H., 1661 (9).
- LATIN-AMERICAN STATES, education, 1036, 1301 (31).
- LATIN LANGUAGE, college entrance requirements, 1516; teaching, 37, 632, 638, 821 (7), 824 (9), 943, 945-946, 1220, 1475 (3), 1512, 1521, 1531, 1667 (20), 1658 (22) (23), 1744, 1939.
- LAW, study, 152, 366, 1856, 2064. *See also LEGISLATION.*
- Lawrance, Marion, 1163.
- Lawrence, C. G., 1889 (2).
- Lawrence, William, 2040.
- Learned, W. S., 1563.
- Leathes, Mrs. J. B., 211.
- Leathes, S. M., 599.
- Leavitt, F. M., 752 (10), 813 (1), 1838, 2007.
- LEAVITT, F. M., 2045.
- LECTURES, free, 1279.
- Ledlie, J. C., 366.
- Lee, F. S., 2063.
- Lee, I. L., 817 (8).
- Lee, J. M., 1236.
- Lee, Jennette, 1255, 1458.
- Lee, Joseph, 177 (18), 512.
- Lee, R. E., 1767.
- LEFT-HANDEDNESS, 806, 1922.
- LEGAL EDUCATION. *See* LAW, study.
- Legge, J. G., 1441.
- LEGISLATION, UNITED STATES, 353, 399, 577 (1), 1068, 1301 (43). *See also under name of state or country.*
- Legouis, Emile, 1051.
- Leiper, M. A., 819 (18).
- Lennes, N. J., 956.
- Lentz, E. Maria, 827 (25).
- Le Roy, Georges, 328.
- Le Seur, B. M., 827 (9).
- Lester, H. A., 343.
- LETTER WRITING, teaching, 928.
- Leupp, Constance D., 1109.
- Levi, Maria, 913.
- Lewinski-Corwin, E. H., 1110.
- Lewis, C. D., 1657 (1).
- Lewis, E. D., 1766 (5).
- Lewis, E. E., 1845.
- Lewis, H. T., 1542.
- Lewis, H. W., 409.
- Lewis, S. R., 1666 (13).
- Lewis, W. D., 1375.
- Lewis, W. O., 824 (12).
- LIBERAL EDUCATION, 15, 138-139, 239, 896 (6), 397 (8), 413, 421, 633, 636, 642, 801 (8), 815 (10), 826 (5), 855, 942, 1309 (4), 1330, 1394, 1653 (3), 1656 (4), 1665 (3), 1963-1964.
- LIBERTY MANUAL ARTS SCHOOL, PITTSBURGH, 354.
- LIBRARIES, college, 803 (2) (3), 1875; county, 1282, 1471 (19); school, 177 (74)-(76), 819 (26), 823 (12) (13), 995, 1469 (1) (6) (2), 1471 (30), 1648, 1632, 1666 (9), 1868 (16), 2000; traveling, 384.
- LIBRARIES AND READING, 165-168, 382-385, 630, 1283-1291, 1301 (14), 1427 (22), 1467, 1648-1652, 1666 (4), 1872-1873, 1875-1876, 2085-2090.
- LIBRARIES AND SCHOOLS, 74, 819 (25), 1206, 1283, 2085.
- LIBRARY SCHOOL GRADUATES, salaries, 575.
- LIBRARY SCIENCE, teaching, 2092.
- Liddeke, Frederick, 1011.
- Lietzmann, Walther, 635.
- LIGHTING OF SCHOOLROOMS, 1579.
- LIGUE POUR L'INSTRUCTION POST-SCOLAIRE OBLIGATOIRE, 379.
- Lille, W. M., 2064.
- LIMA, education, 594.
- Lind, S. C., 1419.
- Lindsay, S. M., 2068 (5).
- Lindsey, Ben B., 129.
- Linn, L. P., 826 (6).
- Lipmann, Otto, 895.
- Lister, Alfred, 1081.
- LITERARY SOCIETIES, country school, 398 (6).
- LITERATURE, 38, 41, 226, 443, 627, 922-923, 1309 (16), 1518, 1527, 1653 (5), 1657 (21), 1717, 1731, 1737, 1740-1741, 1931, 1945, 1951, 1967.
- Little, B. M., 1802.
- Lloyd, F. E., 1732.
- Lobingier, C. S., 2074.
- Lockwood, Laura E., 482.
- Lodge, Gonzalez, 1766 (10).
- Lodge, H. C., 1392.
- Lodwick, Agnes I., 966.
- Löffler, Eugen, 1525.
- Loew, Joseph, 746.
- LOGIC, 615.
- Loman, John, 804 (3).
- LONDON. NEWCOMEN FOUNDATION SCHOOL, 1258.
- LONDON. UNIVERSITY, 1049.
- Loomis, R. A., 354.
- Lord, J. K., 285.
- Lorents, Friedrich, 2048.
- Lorens, Paul, 1354.
- Lory, C. A., 1839.
- LOS ANGELES, high school, 177 (42).
- Loskey, J. B., 594.
- LOUVAIN, Belgium, higher education, 1673.
- LOUVAIN. UNIVERSITY, 1890.
- Lowe, L. A., 716.
- Lowe, O. H., 1666 (20).
- Lowe, Orton, 1287.
- Lowell, A. L., 99, 286, 554, 1223 (3).
- Lowry, E. B., 731.
- Lugg, C. H., 112, 1012, 1899 (16).
- Lull, H. G., 418, 636, 1082, 1188, 2049.
- LUNCHES. *See* CHILDREN, feeding.
- LUTHERAN PAROCHIAL SCHOOLS, 1301 (17).
- Lyans, C. K., 1491.
- Lyman, R. L., 236.
- Lynch, Ella F., 867.
- Lyon, D. O., 218.
- Lynn, Margaret, 666.
- Lyon, E. P., 1228.

Lyon, Georges, 1052.

Lyons, Mrs. D. B., 1664 (10).

Lyttelton, Edward, 868, 1013.

M.

Maass, J., 847.

Mabire, C. Suban., 1459.

Macadam, Elizabeth, 126.

McAndrew, William, 82, 1023.

MacBurney, T. N., 1654 (2).

McCann, M. R., 172.

McCarthy, C. H., 1949.

McCarthy, Sister Mary K., 869.

McCleary, W. J., 1409.

McClinton, J. W., 1899 (23).

McClure, F. W., 1281.

McComb, E. H. K., 1355.

McConathy, Osborne, 1950.

McConaughy, J. L., 267, 1991.

McConnell, J. P., 830 (2).

McCormack, T. J., 1376.

McCormick, P. J., 1301 (15).

McCormick, S. B., 397 (10).

McCoy, W. T., 466.

MacCracken, J. H., 1888 (11).

McCrae, Annabelle, 1660 (6).

McCrory, C. R., 1473 (3).

McCurdy, J. H., 721 (24).

McDermott, Irene E., 827 (12).

McDonald, A. A., 1899 (3).

Macdonald, Alice B., 1326.

McDONALD, Miss E. B., 969.

Macdonald, Margaret M., 180 (3).

Macdonald, N. C., 177 (5), 826 (10), 1768.

Macdonald, W. A., 806 (8).

McDougle, E. C., 957.

McElfresh, Franklin, 748.

McFadden, J. H., 367.

Macfarlane, P. C., 914, 1053.

Macgregor, J. K., 1642.

McIndoo, J. M., 219.

McIntyre, J. L., 1708.

Mack, Eva, 1660 (5).

McKay, Ethel H., 50.

McKeag, Anna J., 120.

McKeever, W. A., 561, 1664 (6), 1666 (9) (23), 1776.

McKibben, F. P., 817 (13).

McKinney, James, 355.

McKinstry, Maude, 1307 (7).

McKnight, T. H. B., 1796.

MacLaurin, R. C., 296.

McLellan, J. H., 961.

McLeod, J. J. R., 149.

MacMahon, Ida, 825 (3).

McManis, J. T., 18.

McMullin, W. G., 1922.

MacMunn, Norman, 33, 870.

MacMurchy, Helen, 721 (16).

McMurry, C. A., 871-872.

McMurry, F. M., 177 (13), 1306 (3).

McMurry, Mrs. Lida B., 917.

McMurtrie, D. C., 163, 1269.

Macnaughton-Jones, Henry, 896.

McVea, Emilie, 818 (1).

McVey, F. L., 176 (11).

McVey, J. M., 1669 (5).

Macy, Mary S., 721 (1).

Maedge, C., 948.

Maennel, Bruno, 1014.

MAGAZINES, use in class, 1844.

Magee, Helene B., 574.

Magnus, Philip, 761.

Magruder, W. T., 817 (1).

Mahannah, F. L., 1656 (10).

Main, Josiah, 177 (67) (80).

Mainwaring, C. L., 1326.

Mais, S. P. B., 637, 1951.

Makower, A. A., 431.

MANHATTAN RUBBER MANUFACTURING COMPANY, corporation school, 812 (3).

MANHATTAN TRADE SCHOOL FOR GIRLS, NEW YORK, 509.

Mankato presbytery, 1754.

Mann, Alfred, 603.

Mann, C. R., 762, 1791.

MANNERS, 827 (3).

MANNHEIMER SYSTEM, 1577.

Mansbridge, Albert, 877.

MANUAL TRAINING, 66, 137-147, 346-358, 530-541, 752-767, 1170-1201, 1306 (18) (19), 1307 (5), 1433-1446, 1621-1626, 1661 (6), 1664 (16), 1665 (7) (8), 1666 (21), 1820-1844, 2041-2053. *See also* INDUSTRIAL EDUCATION; PROFESSIONAL EDUCATION; TECHNICAL EDUCATION; VOCATIONAL EDUCATION.

Maphis, C. G., 78, 805 (3).

March, Norah H., 180 (8), 1422, 1597.

Marchis, L., 1393.

Marden, O. S., 129.

Margaret Mary, Sister, 1653 (14).

MARKING, 113, 607, 715, 2012. *See also* GRADING.

Marshall, E. J., 365 (2).

Martin, G. H., 1332.

Martin, Gertrude S., 1862.

Martin, Herbert, 1656 (14).

Martin, O. B., 4 (2), 1471 (3).

Martin, W. W., 1423.

MARY DATCHELOR GIRLS' SCHOOL, CAMBERWELL, ENG., 563.

Mary de Lourdes, Sister, 1653 (15).

Mary John, Sister, 1653 (17).

Mary Ruth, Sister, 340.

MARYLAND SCHOOL SURVEY, 1658 (1).

Maryland state teachers' association, 395, 1659.

Mason, C. P., 1887 (6).

Mason, Roy, 1189.

MASSACHUSETTS, higher education, 1054; rural life, 1537; school law, 577 (V).

Massachusetts. Commission on immigration, 595.

MASSACHUSETTS HOME-PROJECT PLAN, 776.

Massachusetts institute of technology, 1054.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, 286, 288, 479.

Masseck, C. J., 1998.

MATHEMATICS, 227, 238, 392 (2) (5)-(7), 446, 635, 652, 823 (14) (15), 952-959, 1525, 1637, 1654 (4) (6), 1718, 1942.

Mathews, J. L., 534.

Matterson, E. B., 142.

Matthews, Pauline E., 442.

Matthews, W. K., 100.

Mau, Laura E., 237.

Maurer, H. H., 824 (13).

Maxwell, G. E., 177 (48).

Maxwell, W. H., 212, 1302 (12), 1733, 1888 (8).

- Mayer, E., 1803.
 Mayer, Heinrich, 2033.
 Mayers, Lewis, 706.
 Maynard, Constance L., 2069.
 Mayo, C. H. P., 1164.
 Mead, C. D., 29, 1500.
 Mead, D. W., 817 (7).
 Meade, G. H., 108.
 MECKLIN, J. M., 287.
 MEDICAL EDUCATION, 148, 549, 551, 553-554, 556-557, 1223, 1229, 1301 (3), 1453, 1853-1854, 2061, 2063.
 MEDICAL INSPECTION OF SCHOOLS, 117, 721 (14)-(17), 785, 828 (5), 1106, 1112, 1132, 1302 (6), 1418-1419, 1581, 1584, 1589, 1805.
 MEDICAL RESEARCH, 367.
 Meek, C. S., 177 (17), 396 (3), 2050.
 Meier, C. O., 1814.
 Meiklejohn, Alexander, 397 (9), 1394.
 MELLON INSTITUTE, 1181, 1830.
 Meltzer, S. J., 1854.
 MEMORY, 888, 1498.
 Mensel, E. H., 938, 1526.
 MENTAL FATIGUE, 617, 891.
 MENTAL HYGIENE, 116, 886.
 MENTAL TESTS, 27, 233, 301, 430, 509, 614, 616, 801 (7), 893, 917, 1709, 1913, 1915, 1925. *See also* BINET-SIMON TESTS.
 Meredith, Ellis, 1424.
 MÉRIMÉE, Henri, 483.
 Merrill, Jenny B., 129.
 Merriman, Curtis, 1706.
 Merriott, J. C., 1190.
 Merry, G. N., 1656 (16).
 Messer, August, 1484.
 METHODIST CHURCH, 1672.
 Metzger, J. E., 1659 (3).
 Meumann, Ernst, 419, 897.
 Meylan, G. R., 1766 (18).
 MICHIGAN, vocational education, 752 (1) (2) (6).
 Michigan classical conference, 441.
 MIDDLEBURY COLLEGE, 1063.
 Miersch, Johannes, 810 (6).
 Miessner, Otto, 810 (1), 822 (2).
 MILAN, ITALY. SCUOLA RINNOVATA, 913.
 Milburn, J. B., 195, 676, 1327.
 Miles, H. E., 811 (11).
 MILITARY DEPARTMENT, land-grant colleges, 680 (7), 802 (10) (11).
 MILITARY EDUCATION, 176 (2), 737, 1243-1245, 1567.
 MILL COMMUNITIES, educational conditions, 1471 (16)-(18).
 Miller, Amy P., 3 (3).
 Miller, C. M., 1442.
 Miller, E. L., 1309 (16), 1527.
 Miller, F. W., 1083, 1311 (7).
 Miller, G. A., 1055.
 Miller, G. J., 1952.
 Miller, J. C., 460.
 Miller, W. E., 819 (13).
 Mills, J. S., 573.
 Mills, L. S., 1587.
 Millspeugh, A. C., 1953.
 MILWAUKEE PUBLIC SCHOOL OF TRADES FOR BOYS, 1666 (17).
 MINISTERS' WEEK, 665.
 Minnesota educational association, 1306, 2089.
 MINNESOTA STATE ART COMMISSION, 1200.
 MINNESOTA. UNIVERSITY, five-year engineering course, 817 (12).
 Minnich, H. C., 1024.
 Mirick, G. A., 825 (6).
 MIRROR DRAWING, 1497.
 Misme, Jane, 158.
 MISSION SCHOOLS, 1642, 2074.
 Mississippi teachers' association, 1307.
 MISSOURI, consolidation of schools, 990.
 Missouri society of teachers of English and modern languages, 1308.
 Missouri state teachers' association, 824, 2003.
 MISSOURI. UNIVERSITY, grading system, 283 817 (6).
 Mitchell, J. P., 2068 (1).
 Mitchell, H. E., 268.
 Mitchell, Lucy S., 1120.
 Mitchell, S. C., 681 (6).
 Modern language association, 647.
 MODERN LANGUAGES. *See* LANGUAGES, modern.
 Moffat, S. A., 1247.
 Mohr, W. H., 1379.
 Molino, Luisa, 1316.
 Monahan, A. C., 171, 257, 993 (2), 1301 (8), 1369.
 Monahan, A. J., 1777.
 MONASTIC SCHOOLS, 183.
 Monroe, Mrs. Mary A., 1025.
 Monroe, Paul, 2 (1), 6, 1766.
 Monroe, W. S., 1915.
 Montague, A. P., 393 (3).
 Montessori, Maria, 976.
 MONTESSORI CONFERENCE, 1536.
 MONTESSORI METHOD, 57, 59-61, 175 (4), 177 (33), 180 (4), 193, 249, 394 (5) (6), 452-453, 456, 653, 655-658, 829 (5), 970-977, 1658 (16), 1661 (3), 1882, 1888 (10), 1969; bibliography, 1293.
 Moon, A. H., 491, 600.
 Moore, Maud, 51.
 Moore, P. M., 1657 (13).
 Moore, R. C., 1026.
 Moore, V. A., 150.
 MORAL EDUCATION, 133-136, 175 (1), 339-341, 267 (10), 522-523, 701 (2), 745-748, 827 (3), 1154-1156, 1615-1618, 1662 (9) (10), 1813, 1824-1827, 2031-2034, 2064.
 Morehouse, Frances M., 1578, 1954.
 Morgan, Alexander, 1690.
 Morgan, Barbara S., 568.
 Morgan, G. F., 1095.
 Morgan, H. W., 783.
 Morin, Jeanne, 547, 781, 1211.
 Morley, Edith J., 1027.
 MORMON CHURCH, schools, 1301 (18).
 Morrison, A. H., 1309 (10).
 Morrison, Carolyn E., 1804.
 Morrison, H. C., 178 (1), 801 (2).
 Morse, J. L., 744.
 Morse, Josiah, 30.
 Morton, W. H., 1905.
 Moseley, Eunice, 535.
 Moses, Cleda V., 275.
 Moses, Julius, 569.
 MOTHERS' CLUBS, bibliography, 1293. *See also* PARENT-TEACHER ASSOCIATIONS.
 Mott, J. R., 1305 (2).
 Mott, T. A., 700 (8).
 MOUNTAINEERS, southern, 1100, 1683.
 MOUTH HYGIENE, 1595.

MOVING PICTURES, 34, 223, 423, 621-622, 624, 912, 1301 (27), 1469 (3), 1923-1928; bibliography, 1293.
 MÜNSTERBERG, Hugo, 732.
 MÜNSTERBERG, HUGO, 360.
 Muerman, J. C., 1972 (2).
 Muffley, May R. B., 1661 (14).
 MULCASTER, RICHARD, 832.
 Mulock, Mabel E., 827 (27).
 MULTIPLICATION TABLES, memorizing, 1498.
 Mumford, A. A., 180 (7).
 Mumford, F. B., 802 (13).
 Munford, Mary C. B., 150.
 MUNICIPAL UNIVERSITIES. *See* UNIVERSITIES AND COLLEGES, city.
 Muntz, Albert, 1653 (8).
 Murdock, F. F., 801 (4).
 Murdock, Mabel E., 1955.
 Murphy, M. C., 513.
 Murray, E. R., 1916.
 Murland, Cleo, 752 (13).
 MUSEUMS, 35, 380, 1301 (13), 1874, 2085-2090. *See also* SCHOOL MUSEUMS.
 MUSIC, 52-53, 55, 177 (59) (60), 659, 663, 810, 822, 823, (16), 1311 (6) (13), 1348, 1361, 1517, 1654, 1658 (8), 1661 (14) (15), 1729, 1745, 1883, 1934, 1936, 1950; school credit for home study, 822 (2), 1515, 1746.
 Music teachers' national association, 810.
 Muthesius, Karl, 1639.
 Myers, G. C., 873.
 Myers, G. W., 238.
 Myers, Irene T., 819 (23).

N.

Naismith, James, 1815.
 Nash, Alice M., 1270.
 Nasmyth, G. W., 1056.
 National association of corporation schools, 811, 812.
 NATIONAL ASSOCIATION OF CORPORATION SCHOOLS, exhibit, 1444.
 National association of dental faculties, 1225.
 National association of manufacturers, 356.
 National association of school accounting officers, 1887.
 National association of state universities in the United States of America, 176.
 National association of the deaf, 1462.
 NATIONAL CASH REGISTER SCHOOLS, 811 (1).
 National child labor committee, 813.
 National collegiate athletic association, 734-735.
 National conference on the education of backward, truant, delinquent, and dependent children, 814.
 National conference on universities and public service, 2068.
 NATIONAL CONGRESS OF MOTHERS, 338.
 National council of teachers of English, 168, 647, 931.
 National education association, 177, 815, 1309; Committee on college entrance requirements, 177 (53); Committee on general science, 1724; Committee on grammatical nomenclature, 177 (24); Committee on health problems in education, 177 (29); Committee on normal-school libraries, 177 (75); Committee on normal-school standards, 177 (48); Committee on tests and standards of efficiency, 177 (27); Committee on the articulation of high schools and colleges, 177 (41); Committee on the

improvement of physics teaching, 177 (70); Committee on vocational education and guidance, 177 (55). Departments—business education, 177 (61)-(62); child hygiene, 177 (63)-(64); elementary education, 177 (34)-(37); higher education, 177 (43)-(46); kindergarten education, 177 (30)-(33); library, 177 (73)-(76); manual training and art education, 177 (52)-(58); music education, 177 (59)-(60); normal schools, 177 (47)-(51); physical education, 177 (65)-(66); rural and agricultural education, 177 (80)-(81); school administration, 177 (71)-(72); school patrons, 177 (78)-(79); science instruction, 177 (67)-(70); secondary education, 177 (38)-(42); special education, 177 (77); superintendence, 177 (10)-(24), 366, 700. General sessions, 177 (1)-(9). National council of education, 177 (26)-(29).

NATIONAL EDUCATION ASSOCIATION, 177 (1); DEPT. OF SUPERINTENDENCE, 408; NATIONAL COUNCIL OF EDUCATION, 408, 1315.

National league of nursing education, 8, 1660.

National society for the promotion of industrial education, 536, 752, 1840.

National society for the study of education, 178, 816.

NATIONAL UNIVERSITY FOR THE UNITED STATES, 176 (9), 189, 279, 481, 1064, 1558.

National vocational guidance association, 1300.

NATIONAL WOMEN'S TRADE-UNION LEAGUE, 1191, 1256.

NATURE STUDY, 228, 242, 628, 646, 1533, 1720, 1932-1933, 1960.

NAVAL TRAINING, 1242-1245.

Navarre, C., 638.

Nearing, Scott, 196.

Neave, E. F. M., 1111.

Negro teachers' association and school improvement league of Virginia, 179.

NEGROES, 565, 790-791, 819, (11) (12), 1269, 1867.

Nelson, C. H., 1220.

Neretti, Luigi, 1465.

Nesbit, Edith. *See* Bland, Mrs. Edith (N.).

Neumann, Henry, 396 (2).

Neverman, P. F., 1778.

NEW ENGLAND, education, 801 (5), 1671.

New England association of chemistry teachers, 1310.

New England association of teachers of English, 233, 677.

NEW HAMPSHIRE, education, 463, 669; rural schools, 982.

NEW HAVEN, CONN., public schools, 194.

NEW JERSEY, education, 825 (1).

New Jersey. Council of education, 1048, 1805.

New Jersey. Dept. of public instruction, 1956.

New Jersey state teachers' association, 825.

NEW ORLEANS, delinquency, 2030; educational research, 1704.

NEW SCHOOL MOVEMENT, 16.

New South Wales. Dept. of public instruction, 977.

NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL., physical training, 825.

NEW YORK (CITY), education, 400; health supervision, 1800; public schools, 1000, 1004, 1070; school inquiry, 706, 796, 1999.

New York (City). Association of district superintendents, 1999.

New York (City). Board of education, 1208, 1841.

- New York (City). Board of estimate and apportionment. Committee on school inquiry, 300.
- NEW YORK (CITY). ETHICAL CULTURE SCHOOL, 406.
- NEW YORK (CITY). PUBLIC EVENING SCHOOL OF THE INDUSTRIAL ARTS, 1278.
- NEW YORK (CITY). PUBLIC SCHOOL 188B MANHATTAN, 497.
- NEW YORK, COLLEGE OF THE CITY OF, 2068 (6) (8).
- NEW YORK (STATE), education, 1888; rural schools, 1368; school law, 296, 1572; teachers, 1302 (3); vocational education, 347.
- New York state association of district superintendents, 1888.
- NEW YORK STATE COLLEGE FOR TEACHERS, 1984.
- New York state teachers' association, 83.
- NEW YORK STATE VETERINARY COLLEGE, CORNELL, 150.
- New York training school for public service, 410.
- NEW YORK UNIVERSITY, history, 682.
- New York. University club, 1993.
- NEW ZEALAND, education, 1301 (41).
- Newberry, Marie A., 995.
- NEWCOMEN FOUNDATION SCHOOL, LONDON, 1258.
- NEWSPAPERS. *See* JOURNALISM; MAGAZINES; PRESS AND EDUCATION.
- Nichol, J. B., 1853 (7).
- Nichols, E. F., 804 (1).
- Nicholson, Thomas, 809 (2).
- Noble, Isabel, 1097.
- Nock, A. J., 596, 1140.
- NORMAL SCHOOLS, 69, 177 (46)-(51), 396 (4) (5), 801 (4), 827 (17), 1024, 1031, 1309 (6) (12), 1311 (2), 1657 (3) (4), 1778, 1989; graduates, 177 (34) (47), 470; physical education, 511.
- Norris, A. C., 392 (3).
- Norris, E. B., 680 (6).
- Norris, O. O., 239.
- North American civic league for immigrants. New York-New Jersey committee, 170.
- NORTH CAROLINA, education, 1661 (16); rural life 1370 (4); vocational education, 1661 (19).
- NORTH CAROLINA LITERARY FUND, 1668.
- North Carolina teachers' assembly, 1661.
- North Carolina. University. Summer school for teachers, 1370.
- North central association of colleges and secondary schools, 1662.
- NORTH DAKOTA, consolidated schools, 1758.
- NORTH DAKOTA, Bible study accrediting, 815 (11); education, 826 (2).
- North Dakota education association, 826.
- North of England education conference, 180.
- Northrop, Alice R., 129.
- Norwood, Cyril, 180 (6).
- Noss, Mary G., 827 (3).
- Nöchter, Fr., 1429.
- NURSES, training, 3, 550, 555, 784, 1233-1234, 1454, 1660.
- Nutt, H. W., 1629.
- Nutting, M. Adelaide, 1660 (2).
- Nydegger, J. A., 1543.
- O.**
- Oakes, G. H. M., 1859.
- OAKLAND, CAL., medical inspection, 117.
- Obenchain, Lida C., 1658 (17).
- OSBERLIN COLLEGE, students' programs, 681 (8).
- O'Brien, H. R., 1528.
- OCCUPATIONS. *See* VOCATIONAL GUIDANCE.
- O'Donnell, W. C., 749.
- Odum, H. W., 667.
- Oehme, Walter, 1906.
- Offenhauer, R. E., 143.
- Ogden, C. K., 798, 1272, 1490.
- O'Grady, Alice, 656.
- OHIO, education, 198, 1063, 1311; high schools, 263; rural life, 1759; school law, 173, 492, 577 (V); school survey, 11, 84, 198, 410; teachers, 84.
- Ohio college association, 1663.
- Ohio state school survey commission, 410, 1068.
- Ohio state teachers' association, 1311.
- OHIO STATE TEACHERS' ASSOCIATION, 1311 (1).
- OHIO STATE UNIVERSITY, summer surveying, 817 (10).
- Olcott, Frances J., 623.
- Oldendorff, Paul, 420.
- O'Leary, W. A., 752 (8).
- Olerich, Henry, 220.
- OLERICH, VIOLA R., 220.
- Oliphant, James, 1907.
- Oliver, T. E., 1873.
- Olivet, H. S., 1603.
- ONE-ROOM SCHOOLS, 177 (2), 398 (3), 668, 992, 994.
- Opdycke, J. B., 443, 827 (28), 1356, 1529, 1734.
- OPEN-AIR SCHOOLS, 312, 505, 721 (3) (22), 1099, 1508, 2016.
- Oppenheimer, C. P., 1473 (7).
- ORAL ENGLISH, 808 (2), 925, 930.
- ORAL HYGIENE, 1595.
- ORANGE CO., VA., sanitary survey, 1297.
- OREGON, high schools, 70; rural schools, 1540.
- ORIENT, education, 1679, 2073-2075.
- Ott, C. I., 1735.
- Orth, R., 276.
- Orton, Edward, Jr., 680 (7), 802 (10).
- Osborn, J. W., 2 (3).
- OSCEOLA, 1072.
- Osgood, Edith W., 1357, 1530.
- O'Shea, M. V., 334, 562, 789, 920, 1304, (6), 1333, 1588.
- Osler, William, 151.
- OTTLEY, Alice, 788.
- Ousley, Clarence, 820 (2).
- OVER-AGE PUPILS. *See* BACKWARD CHILDREN.
- OVER-PRESSURE IN SCHOOLS, 1414.
- Overhulse, C. K., 1889 (12).
- OVIEDO. UNIVERSITY, 483.
- OWATONNA, MINN., curriculum, 2005.
- OXFORD UNIVERSITY, 91, 101, 476, 1168; Bodleian library, 1649.
- Oxley, C. E., 1818.
- P.**
- PACKARD MOTOR CAR COMPANY, corporation school, 812 (2).
- Pädagogische jahresschau über das volksschulwesen im jahre 1913, 1785.
- Painter, G. S., 1358.
- Palmer, Alice N., 827 (14).
- Palmer, C. F., 177 (81).
- Palmer, Cornelia, 1850.
- Palmer, Erastus, 1766 (9).
- Palmer, G. H., 1992.
- Palmer, J. J., 701 (1).
- Palmer, Luella A., 454, 978, 1309 (8), 1749.

- PARENT-TEACHER ASSOCIATIONS, 338, 1143, 1304 (2); bibliography, 1293. *See also* HOME AND SCHOOL.
- Parish, E. A., 898.
- Park, E. R., 1473 (6).
- PARK COLLEGE, PARKVILLE, MO., 1842.
- Parker, Alice N., 1154, 1304 (9).
- Parker, C. A., 1112.
- Parker, G. H., 448.
- Parker, Sir Gilbert, 1328.
- Parker, S. R., 2060.
- PARKEE SCHOOL, SAN DIEGO, CAL., 1508.
- Parkin, G. R., 176 (4).
- Parkinson, W. D., 979, 1894.
- PAROCIAL SCHOOLS, 1301 (7) (15), 1653 (13)—(15) (17). *See also* CHURCH SCHOOLS.
- Parsons, Mrs. Clement, 967.
- Parsons, J. G., 1889 (20).
- Parsons, Sara E., 784.
- PART-TIME EDUCATION, 145, 172, 752 (16)—(17), 1182, 1434, 1445.
- Partlow, L. L., 717.
- PASADENA HIGH SCHOOL, 768.
- PASSAIC, N. J., corporation school, 812 (3).
- Passano, L. M., 690, 1057.
- Passk6nig, Oswald, 221.
- Paterson, Alice, 1317-1318.
- Patrick, G. T. W., 1131, 1807.
- PATRIOTISM. *See* CIVIC EDUCATION.
- Patterson, C. T., 258.
- Patterson, H. P., 1486, 1889 (6).
- Patton, W. A., 701 (7).
- Patzner, C. E., 1786.
- Paul, H. G., 639.
- Payne, A. F., 1443.
- Payne, B. R., 1471 (7).
- Payne, E. G., 1452.
- Payot, Jules, 341, 640.
- Peabody, J. E., 815 (13), 1810.
- PEACE, 174, 191, 393 (2), 395 (5), 821 (9), 1305 (1) (2), 1608.
- Pearse, C. G., 392 (2), 396 (5), 700 (10), 815 (9), 1410, 1665 (2), 1666 (10) (12) (19).
- Pearson, F. B., 421.
- Pearson, Karl, 1242.
- PEDAGOGICS. *See* TEACHING.
- Peets, E. A., 1359.
- Peeters, Edouard, 899.
- Pelham, H. S., 1192.
- PENMANSHIP. *See* HANDWRITING.
- PENN SCHOOL, ST. HELENA ISLAND, N. C., 790.
- Pennsylvania state educational association, 397, 701, 827.
- Perkiso, E. C., 1889 (1).
- Perkins, A. S., 1220, 1531.
- PERKINS INSTITUTION FOR THE BLIND, BOSTON, 795.
- Perlitz, Lina, 1664 (12).
- Perrine, Lura A., 828 (11).
- Perrotin, L6o, 900.
- Perrott, G. St. J., 161.
- Perry, C. A., 127, 1015, 1141, 1766 (20), 2028.
- Perry, John, 1334, 1548.
- Perry, Lawrence, 1816.
- Perry, R. B., 1155.
- Perry, W. G., 819 (20).
- Persigout, G., 369.
- Person, H. B., 817 (2).
- PFEU, education, 594.
- Petersen, Anna M., 2081.
- Peterson, H. A., 1917.
- PETOSKEY, MICH., exceptional children, 162.
- Pfordten, Otto von der, 1492.
- Phelan, John, 1475 (2).
- Phelps, Alice S., 1767.
- Phelps, Editha, 331.
- PHILADELPHIA, public schools, 833.
- PHILIPPINE ISLANDS, education, 2 (1) (3), 835, 843.
- Phillips, Adams, 171.
- Phillips, J. H., 819 (15), 819 (26), 1473 (5), 1768.
- PHILLIPS ACADEMY, Andover, Mass., 266.
- PHILOSOPHY, 426, 1354, 1957.
- PHILOSOPHY, CONCORD SCHOOL, 1085.
- Philpott, O. H., 641.
- PHONICS, 51.
- PHYSICAL EDUCATION, 158, 177 (65)—(66), 323-330, 509-514, 734-740, 1124, 1309 (15), 1602-1604, 1811-1816, 1889 (21), 2025-2027.
- PHYSICAL GROWTH, 1294.
- PHYSICAL TESTS, 721 (24). *See also* BINET-SIMON TESTS.
- PHYSICS, college entrance requirements, 433; teaching, 177 (70), 232, 392 (8) (9), 961, 1514, 1728, 1929, 1957.
- PHYSIOGRAPHY, 392 (4).
- PHYSIOLOGY, teaching, 149, 1726.
- Picavet, R., 849.
- Pierce, J. A., 1262, 1868.
- Pierce, W. E., 1888 (7).
- Pintner, Rudolf, 1707.
- Pitts, R. S., 423.
- PITTSBURGH. LIBERTY MANUAL ARTS SCHOOL FOR GRADE PUPILS, 362.
- PITTSBURGH. MELLON INSTITUTE, 1181, 1830.
- PLAY, 123, 458, 512, 824 (2), 1128, 1131, 1426-1427, 1605-1607, 1817, 1888 (4), 1889 (18), 2028-2029; bibliography, 1298. *See also* GAMES; RECREATION.
- Playground and recreation association of America, 123.
- PLAYGROUND SURVEYS, 1126.
- PLAYGROUNDS, 123, 1126, 1426-1427, 1605-1607, 1817, 2028-2029; bibliography, 1293.
- PLAYS, school, 48.
- P6hlmann, Robert von, 642.
- Plumb, Mary K., 1798.
- POETRY, teaching, 922-923, 1716, 1938.
- Poincar6, Raymond, 707.
- POLITICS AND EDUCATION, 291, 1888 (11).
- POLK COUNTY, OREG., rural schools, 1540.
- Pollock, H. M., 60.
- "PONT," use, 1512.
- Poore, W. A., 473.
- Porter, E. H., 311.
- PORTLAND, OREG., public schools, 190, 295, 496.
- PORTO RICO, education, 2 (2).
- Poeke, Friedrich, 1957.
- Posse, Rose, 177 (66).
- Post, L. F., 1306 (2) (11).
- Potter, Alicia, 691.
- Potter, M. C., 177 (40), 1309 (9).
- Powell, L. P., 1617.
- Powell, Susie, 1471 (2).
- Power, Effie L., 1288.
- PRACTICAL EDUCATION. *See* VOCATIONAL EDUCATION.
- PRECOCITY, 890, 1918.

Presbyterian church in the U. S. A. Board of home missions. Dept. of church and country life, 1759-1760.

PRESS AND EDUCATION, 1658 (1).

Preston, Josephine C., 259, 1309 (4).

Pretzel, C. L. A., 1029.

PREVOCATIONAL EDUCATION, 539, 827 (2), 1171, 1183, 1446, 1658 (7), 2046.

Price, Cecil, 1248.

Price, R. R., 1306 (14).

Price, W. R., 240.

Prudeau, E. B. R., 850.

PRIMARY EDUCATION, 57-61, 249-250, 653-658, 1363-1365, 1748-1751.

PRINCETON UNIVERSITY, 450, 698, 1038, 1067, 1113.

PRINCIPALS, 826 (6) (7). *See also* SCHOOL BOARDS.

PRINCIPLES AND PRACTICE OF TEACHING. *See* TEACHING.

PRINTING, teaching, 354, 1665 (13).

Pritchard, Eric, 1822.

Pritchett, H. S., 1396.

PRIVATE SCHOOLS, 1318.

PROCTOR SYSTEM, 1216.

PROFESSION, CHOICE OF. *See* VOCATIONAL GUIDANCE.

PROFESSIONAL EDUCATION, 148-152, 366-367, 549-558, 783-784, 1331, 1660 (1), 1853-1856, 2061-2064.

See also INDUSTRIAL EDUCATION; MANUAL TRAINING; TECHNICAL EDUCATION; VOCATIONAL EDUCATION.

PROFESSORS. *See* COLLEGE PROFESSORS.

PROMOTION OF PUPILS, 5 (2), 495, 500, 821 (4), 1091-1092, 1656 (7), 1666 (20), 1797. *See also* BACKWARD CHILDREN; GRADING; RETARDATION.

Prosser, C. A., 357, 394 (1), 397 (4), 824 (4) (5).

Prosser, C. S., 1396.

PROVIDENCE, R. I., education, 406.

PROVINCIAL UNIVERSITIES, Canada, 699.

Prüfer, Johannes, 763, 1670.

PRUSSIA, education, 201, 1014, 1482; school law, 851.

PSYCHOLOGY, 1376, 1935; experimental, 1027. *See also* EDUCATIONAL PSYCHOLOGY.

PSYCHOPHYSICAL TESTS. *See* BINET-SIMON TESTS; MENTAL TESTS.

Public education association of Philadelphia, 833.

PUBLIC HEALTH. *See* HYGIENE, public.

PUBLIC SCHOOLS (ENDOWED), *Gr. Brit.*, 1013, 1164.

PUBLIC SCHOOLS, United States. *See* UNITED STATES, education.

PUBLIC SERVICE, training for, 1561, 2068.

PUBLIC SPEAKING, 245, 631.

Puffer, J. A., 1666 (2) (3).

Puncheon, Katherine E., 678.

PUNISHMENT, corporal, 704.

PUPIL SELF-GOVERNMENT, 110-111, 1887; bibliography, 1293.

Pusy, E. D., 1085.

Putnam, Alice, 968.

Pyke, A. J., 828 (4).

Pyle, W. H., 901, 1823.

Q.

Quayle, W. A., 1666 (4).

Quest, A. L. Hall, 2011.

Quigley, Samuel, 1306 (10).

Quinn, Mary J., 362.

Quint, W. D., 1792.

R.

RABUN COUNTY, GA., education, 1971.

Radosavljevich, P. R., 902.

Raffety, W. E., 337.

Ramsay, R. L., 1308 (4).

Ranck, S. H., 1469 (2).

Randall, C. C., 1307 (3).

Randall, J. A., 177 (70).

Rankin, A. W., 2004.

Rankin, W. S., 1471 (6).

Rao, C. R. N., 1589.

Rapeer, L. W., 177 (64), 504, 725, 1302 (11), 1309 (17), 2051.

Raper, C. L., 269, 1661 (18).

Rathbone, Josephine A., 575.

Rathbun, F. E., 830 (1).

Rathmann, C. G., 1874, 2027.

Rawls, Elizabeth S., 962.

Ray, L. B., 821 (4).

Ray, P. O., 827 (19).

Raycroft, J. E., 1113.

Rayen, H. K., 874.

Raymond, Anan, 1397.

Raymond, Frances Effinger, 177 (61).

RAYMOND RIORDAN SCHOOL, 764.

Rayner, W. H., 1193.

Rea, P. M., 1301 (13).

READING, 43, 51, 614, 916-918, 1524, 1687, 1738, 1956.

See also LIBRARIES AND READING.

READING CIRCLES, 1888 (3).

Reagan, C. R., 71, 1827.

REAL ESTATE, instruction, 1222.

Reaney, M. Jane, 1869.

Reavis, W. C., 1590.

Reber, L. E., 378, 680 (5), 752 (1), 1299.

RECITATION, 1337, 1692, 1905.

RECKONING TEST, 893.

RECREATION, 458, 1128. *See also* GAMES; PLAY.

RECREATION CENTERS, 127, 250, 1141. *See also* SCHOOLS AS SOCIAL CENTERS.

RECREATION SURVEYS, 2028.

Redfield, W. C., 537, 752 (7), 812 (5).

REDWOOD COUNTY, MINN., religious life, 1754.

REED COLLEGE, course on social living, 681 (7).

Reeves, A. R., 1886 (1).

Reeves, Edith, 1899.

Reeves, I. L., 1244.

REGENTS' EXAMINATIONS, New York, 1888 (14) (15).

Register, L. B., 152.

Reichel, Walther, 508.

Reid, O. L., 1658 (19).

Rein, W., 831 (1).

Reinach, Théodore, 20.

RELIGIOUS EDUCATION, 133-136, 342-345, 524-529, 681, 747-751, 909, 1157-1169, 1431-1432, 1619-1620, 1653 (1), 1664 (7), 1828-1829, 2085-2040.

Religious education association, 681.

RELIGIOUS PEDAGOGY. *See* SUNDAY SCHOOLS.

RELIGIOUS SURVEYS, 1754.

Renshaw, J. H., 811 (13).

RENSSELAER POLYTECHNIC INSTITUTE, 2052.

Reppiler, Agnes, 21, 733.

RESEARCH, 367, 1043, 1055, 1790.

RETARDATION, 109, 304, 306, 498, 1093, 1095, 1097, 1306 (16), 1658 (6), 1665 (13), 1797. *See also* BACKWARD CHILDREN; ELIMINATION; PROMOTION OF PUPILS.

- Rey, A. A., 721 (6).
 Reynolds, A. C., 1661 (2).
 Reynolds, J. H., 692.
 RHETORIC, 640, 924. *See also* ENGLISH LANGUAGE, composition.
 RHODES SCHOLARSHIPS, 176 (4).
 Rhoton, A. L., 1471 (9).
 Rice, Melvin, 2059.
 Rice, O. S., 177 (74).
 RICE INSTITUTE, 1906.
 RICE TEST, 27.
 Richard, Brother, 1653 (6).
 Richards, C. R., 144, 752 (9), 1766 (17).
 Richards, Florence H., 514.
 Richardson, G. H., 750.
 RECHMOND, vocational education survey, 1840.
 Richter, Johannes, 1691.
 Rickard, G. E., 1980.
 Ricketts, P. C., 2052.
 Riddle, C. B., 1058.
 Rigg, C. E., 563.
 Rindge, F. H., 438.
 Riordan, Raymond, 764, 1666 (18).
 Rippmann, Walter, 1532.
 Risley, J. H., 1383, 1658 (15).
 Roach, Mrs. J. V., 1761.
 Roach, W. W., 312, 505.
 Roberts, E. D., 177 (17).
 Roberts, E. L., 819 (16).
 Roberts, W. E., 814 (2).
 Roberts, W. M., 146, 752 (16), 1445 (3).
 Robertson, J. W., 828 (1) (2).
 Robins, Margaret D., 1266.
 Robinson, K. D., 1842.
 Robison, C. H., 1766 (17).
 Rodeffer, J. D., 939.
 Roecker, W. F., 1968.
 Roger, Maurice, 270, 462, 1016.
 Rogers, A. C., 164.
 Rogers, Agnes L., 1708.
 Rogers, Francis, 643.
 ROMAN CATHOLIC CHURCH, education, 196, 1301 (15), 1653 (12) (14), 1906. *See also* MONASTIC SCHOOLS.
 ROME, vocational education, 1843.
 Root, A. S., 1875.
 Roques, Paul, 940.
 Rose, Mary S., 1861.
 ROSELAND, ILL. VAN VLISSINGEN SCHOOL, 1720.
 Rosenthal, Georg, 1863.
 ROSENWALD, JULIUS, 1867.
 Roser, Blanche L., 1656 (12).
 Rounds, C. R., 1737.
 Roussy, Baptiste, 1450.
 Rowe, Blanche H., 1738.
 Rowe, H. M., 1221.
 Rowe, R. C., 1501.
 Roy, B. K., 915.
 Roys, Abby E., 947.
 Rubins, R. B., 1667 (19).
 RURAL CHURCHES, 666, 967.
 RURAL LIFE, 68, 72, 253, 394 (7), 458, 701 (6), 819 (4), 824 (7), 933, 1306 (6), 1309 (12), 1370, 1471 (4) (6), (13) (14), (22), 1537, 1667 (4), 1664 (4) (5); bibliography, 1233.
 RURAL SCHOOL CHILDREN, 1503.
 RURAL SCHOOL LIBRARIES, 177 (74), 996, 1469 (6), (7), 1652, 1666 (9).
 RURAL SCHOOLS, 62-75, 171, 177 (5) (26) (57) (71), 251-262, 296 (7), 398 (2), 457-461, 659-669, 700 (6), 701 (5) (6) (12) (13), 801 (3), 819 (4) (10) (22), 824 (3) (8), 826 (10), 980-990, 1301 (8), 1309 (2) (11), 1366-1371, 1471 (12) (21), 1473 (2), 1475 (2), 1537-1544, 1656 (8) (13), 1667 (13), 1669 (3) (4), 1664 (13) (14), 1752-1763, 1879, 1880, 1884, 1888 (1) (6) (9) (12), 1889 (1) (3) (4) (10), 1970-1973, 2003; bibliography, 460, 1293. *See also* CONSOLIDATION OF SCHOOLS.
 RURAL SURVEYS, 394 (3), 1759-1760.
 Russell, Isaac, 582.
 Russell, J. E., 424.
 Russell, L. J., 615.
 Russell, W. F., 1360, 1969.
 RUSSIA, education, 846, 1301 (39).
 Rutland, J. R., 819 (21).
 Rutland, Miss Johnnie W., 393 (4).
 Ryan, Orson, 177 (65).
 Ryan, W. C., Jr., 577 (III), 1301 (1).
 S.
 Sabine, E. D., 817 (3).
 Sachse, A., 851.
 Sadler, M. E., 180 (1).
 Saffioti, F. U., 456.
 St. Clair, D. F., 72.
 St. John, C. G., 1889 (11).
 ST. JOHN'S COLLEGE, AGRA, INDIA, 696.
 ST. HELENA ISLAND, N. C. PENN SCHOOL, 790.
 Saleeby, C. W., 1001.
 Salisberg, Paul von, 102.
 Salmon, Lucy M., 1289.
 Samson, Mary E., 1309 (15).
 Sanders, F. W., 22, 214, 426, 875, 1335, 1493, 1692, 1908.
 Sanderson, E. D., 802 (14), 1059.
 SAN DIEGO, CAL. PARKER SCHOOL, 1506.
 Sandiford, Peter, 742, 903, 1779.
 SAN FRANCISCO, public schools, 1675.
 SANITARY SURVEYS, 1297, 1543.
 SANTA FE RAILWAY SYSTEM, apprentice schools, 767.
 Sardou, Prosper, 693.
 Sargent, C. G., 906, 1973.
 Sarkar, V. K., 215.
 Saskatchewan educational association, 828.
 SCANDINAVIAN LANGUAGES, teaching, 826 (8).
 Saunders, A. H., 1301 (27).
 Schaeffer, N. C., 85, 177 (16), 815 (4), 827 (6).
 Schallenberger, Margaret E., 1309 (2).
 Schaper, W. A., 1660.
 Schauer, Richard, 2082.
 Schermerhorn, Grace, 782.
 Schilling, M., 335.
 Schively, Adeline F., 1990.
 Schlaflay, R. K., 817 (10).
 Schlunk, Martin, 1461.
 Schmidkuns, Hans, 1398.
 Schmidt, A., 34.
 Schmidt, F. A., 1114.
 Schmidt, Franz, 1030.
 Schmidt, H. W., 1666 (21).
 Schmitt, Clara, 1709.
 Schmitz, —, 223.
 Schneider, Herman, 1448.
 Schoch, E. P., 1961.
 Schoenfelder, L., 720, 1690.
 Schoff, Mrs. Frederic, 338.
 SCHOLARSHIPS, 176 (4), 1045.

- SCHOOL ADMINISTRATION. *See* ADMINISTRATION, schools.
- SCHOOL AGE, 217, 501, 721 (12).
- SCHOOL AND COMMUNITY. *See* COMMUNITY AND SCHOOL; SOCIAL ASPECTS OF EDUCATION.
- SCHOOL AND HOME, 177 (78)-(79). *See also* PARENT-TEACHER ASSOCIATIONS.
- SCHOOL ARCHITECTURE, 114-115, 662, 718-720, 1098-1099, 1579-1580, 1666 (14), 1757, 1799, 1894.
- SCHOOL BOARDS, 1407, 1667 (15) (16), 1664 (9), 1899 (23), 2000. *See also* PRINCIPALS.
- SCHOOL BOOKS. *See* TEXT-BOOKS.
- SCHOOL CHILDREN. *See* CHILDREN.
- SCHOOL CLINICS, 722, 1110.
- SCHOOL CREDIT FOR HOME WORK, 177 (17), 782, 819 (24), 822 (2), 1515, 1746.
- SCHOOL DISCIPLINE. *See* DISCIPLINE; SCHOOL MANAGEMENT.
- SCHOOL EXTENSION. *See* EDUCATION EXTENSION.
- SCHOOL FARMS, 1307 (4), 2056.
- SCHOOL FINANCE, 705, 826 (9), 1081, 1405, 1658 (3), 1795, 1887. *See also* ADMINISTRATION, schools; UNIVERSITIES AND COLLEGES, finance.
- SCHOOL GARDENS, 177 (81), 515-516, 1212-1214, 1309 (19), 1449, 1849. *See also* GARDENS.
- SCHOOL GOVERNMENT. *See* SCHOOL MANAGEMENT.
- SCHOOL HOURS, 2017.
- SCHOOL HOUSES. *See* SCHOOL ARCHITECTURE.
- SCHOOL HYGIENE, 116-120, 173, 177 (26) (29) (63) (64), 308-317, 501-506, 509-510, 721-726, 819 (5) (6), 820 (3), 827 (5) (13), 829 (7), 1100-1118, 1302 (11), 1309 (18), 1414-1420, 1473 (6), 1581-1595, 1657 (12), 1800-1807, 1899 (20), 2016-2022.
- SCHOOL IMPROVEMENT LEAGUES, Kentucky, 461.
- SCHOOL LAWS. *See* LEGISLATION.
- SCHOOL LIBRARIES. *See* LIBRARIES.
- SCHOOL LIGHTING, 1579.
- SCHOOL LUNCHES. *See* CHILDREN, feeding.
- SCHOOL MANAGEMENT, 110-113, 177 (11) (17), 303-307, 494-500, 713-717, 1091-1097, 1413, 1574-1578, 1653 (2), 1666 (8) (22), 1796-1798, 2007-2015. *See also* DISCIPLINE.
- SCHOOL MUSEUMS, 826 (11). *See also* MUSEUMS.
- SCHOOL NURSE, 1582.
- SCHOOL PAPERS. *See* JOURNALISM.
- SCHOOL PLAYS, 48.
- SCHOOLROOM DECORATION, 1098.
- SCHOOL SANITATION. *See* SCHOOL HYGIENE.
- SCHOOL SAVINGS BANKS, 499, 821 (5).
- SCHOOL SESSIONS, 1661 (13).
- SCHOOL SUPERVISION. *See* SUPERVISION.
- SCHOOL SURVEYS. *See* SURVEYS, educational.
- SCHOOLS, medical inspection. *See* MEDICAL INSPECTION OF SCHOOLS.
- SCHOOLS AS SOCIAL CENTERS, 177 (4), 819 (3), 827 (1), 981, 1015, 1136, 1139, 1471 (10), 1542, 1609, 1653 (17), 1658 (24), 1756, 1972. *See also* RECREATION CENTERS.
- Schulthess, Wilhelm, 2022.
- Schultz, E. W., 752 (15).
- Schultze, Ernst, 772.
- Schuster, Sarah J., 73.
- Schwartz, E., 463.
- SCIENCE, applied, 1309 (10); teaching, 44, 177 (67)-(70), 227, 229, 392, 629, 824 (11), 960-962, 1510, 1525, 1723-1724, 1952-1958, 1962.
- SCIENTIFIC MANAGEMENT, 177 (20), 303, 817 (2).
- SCIENTIFIC RESEARCH, 1043, 1055.
- SCOTLAND, domestic science, 547, 781; education, 8.
- Scott, A. S., 820 (5).
- Scott, F. N., 1662 (1).
- Scott, M. C., 876.
- SCOTT COUNTY, VA., education, 1667.
- SCOUTS. *See* BOY SCOUTS.
- Scribner, E. E., 177 (52).
- Scroggs, W. O., 1739.
- Scudder, M. T., 1888 (10).
- SCUDDER SCHOOL, 193.
- SCUOLA RINNOVATA, MILAN, 913.
- Sears, J. B., 1068.
- Sechrist, F. K., 2013.
- SECONDARY EDUCATION, 76-79, 180 (2) (6), 263-273, 462-469, 669-672, 801 (2), 804-805, 815 (4), 826 (4), 1000-1017, 1301 (5), 1325, 1372-1377, 1493, 1545-1549, 1764-1769, 1906, 1974-1982. *See also* HIGH SCHOOLS.
- Sealey, Levi, 1319.
- Seerley, H. H., 679, 1371, 1624, 1665 (3), 1762.
- Segar, Mary, 1565.
- SEGREGATION, 393 (9), 818 (2). *See also* COEDUCATION; COORDINATE COLLEGES.
- Seldes, G. V., 1566.
- SELF-ACTIVITY CLASS, 2014.
- SELF-GOVERNMENT, 110-111, 1857; bibliography, 1293.
- SELF-TEACHING, class, 33.
- Sellman, E. R. A., 1766 (14).
- Selter, Hugo, 1115.
- Selvidge, R. W., 1194, 1665 (1).
- Senger, H. L., 945.
- Sensenig, Barton, 241, 444.
- SERVANTS, training, 1258.
- SEVEN-YEAR ELEMENTARY SCHOOL, 177 (19). *See also* JUNIOR HIGH SCHOOLS; SIX-AND-SIX PLAN.
- SEWICKLEY, PENN., public schools, 402.
- SEX HYGIENE, 121-122, 177 (63), 180 (8), 318-322, 507-508, 700 (8)-(10), 721 (5), 727-733, 814 (6), 815 (13), 1119-1123, 1302 (10), 1309 (13) (14), 1421-1425, 1596-1598, 1806-1810, 1888 (13), 2023-2024.
- SEX IN EDUCATION. *See* COEDUCATION; SEGREGATION.
- Sexson, J. A., 1769.
- SEYMOUR, H. C., 1540.
- Shackelford, W. N., 1195, 1657 (18).
- SHAKESPEARE, teaching of, 637.
- Shand, A. F., 1341.
- Shank, Ethel I., 1656 (11).
- Sharpless, Isaac, 827 (16).
- Shaver, F. W., 821 (6).
- Shaw, Elisabeth R., 177 (23).
- Shawkey, M. P., 177 (2), 200, 668.
- Sheats, W. N., 303 (1).
- Sheffield, A. D., 832.
- Sherman, C. E., 817 (10), 817 (14).
- Sherman, E. C., 825 (8).
- Sherman, Ruth B., 555.
- Shewmake, E. F., 1740.
- Shields, T. E., 128, 520, 765, 877, 1596, 1798.
- Shiels, Albert, 2068 (6).
- Short, R. L., 146, 392 (6).
- Shreves, R. M., 1710.
- Shrifer, J. H., 997.
- Shuttleworth, C., 242.
- SIBERIA, education, 412.
- Siepert, A. F., 601.

- Siepmann, Otto, 941.
 Sies, R. W., 827 (20).
 SIGMA XI, 1286.
 Silver, E. L., 801 (5).
 Simmons, A. T., 1932.
 Simon, Th., 2077.
 Simpson, M. M., 977.
 Sinclair, W. M., 1693.
 SINGING, instruction, 643, 1654 (2).
 SINGLE-ROOM SCHOOLS, 177 (2), 308 (3), 668, 992, 994.
 Sioussat, St. G. L., 447.
 Sisson, E. O., 1766 (8).
 SIX-AND-SIX PLAN, 819 (2), 1403, 1662 (2), 2006.
See also JUNIOR HIGH SCHOOLS; SEVEN-YEAR
 ELEMENTARY SCHOOL.
 Skeele, Annie C., 1591.
 Skinner, H. M., 602.
 SLEEP, 1116.
 Slemmon, E. T., 1066.
 Slosson, E. E., 1060.
 Sluss, H. O., 1657 (6).
 Small, A. W., 1604.
 Small, R. O., 801 (10).
 Small, Sidney Aylmer-, 433.
 Small, W. H., 1671.
 Small, W. S., 313, 721 (15), 1361.
 Smith, Alice M., 322.
 Smith, Anna T., 577 (II), 1301 (30).
 Smith, D. E., 1766 (13).
 Smith, Mrs. E. F. S., 3 (2).
 Smith, F. W., 700 (5), 1031.
 Smith, G. M., 1889 (8).
 Smith, George, 1290.
 Smith, H. B., 23, 1536.
 Smith, H. L., 358, 816 (1).
 Smith, H. P., 301, 1573.
 Smith, H. R., 1196.
 Smith, Meredith, 454.
 Smith, T. B., 1672.
 Smith, T. M., 644.
 Smith, W. H., 1846.
 Snedden, David, 177 (23), 396 (6), 752 (4), 801 (1),
 878, 1741-1742, 1766 (5) (21), 2060.
 SNEDDEN, DAVID, 877.
 Snell, J. F., 363.
 Snow, Mary S., 823 (5).
 Snyder, E. R., 1766 (4).
 Snyder, H. N., 1165.
 Snyder, Henry, 468.
 Snyder, Z. X., 177 (50).
 Soares, T. G., 1166.
 SOCIAL ASPECTS OF EDUCATION, 124-128, 177 (6),
 331-335, 396 (1), 398 (2), 462, 517-520, 741-742, 1134-
 1143, 1306 (12), 1428-1430, 1473 (5), 1608-1611, 1657
 (7), 1818-1819, 2030. *See also* HOME AND SCHOOL.
 SOCIAL CENTERS. *See* RECREATION CENTERS;
 SCHOOLS AS SOCIAL CENTERS.
 SOCIAL SCIENCE, teaching, 47, 649.
 SOCIAL SURVEYS, 1542.
 SOCIALISM AND EDUCATION, 585.
 Society for the promotion of engineering educa-
 tion, 817.
 Society of college teachers of education, 181.
 SOCIOLOGY, rural, bibliography, 802 (1); teaching,
 634, 948, 1066.
 Sommers, H. A., 1658 (1).
 Souder, C. D., 570.
 SOUTH AMERICA. *See* LATIN-AMERICAN STATES.
 SOUTH CAROLINA, teachers, 4 (3).
 South Carolina state teachers' association, 4.
 SOUTH DAKOTA, education, 1899.
 South Dakota educational association, 1899.
 Southeast Missouri teachers' association, 398.
 Southern association of college women, 182, 818.
 SOUTHERN COMMISSION ON ACCREDITED SCHOOLS,
 79.
 Southern educational association, 819, 1471.
 SOUTHERN INDUSTRIAL INSTITUTE, CHARLOTTE,
 N. C., 1276.
 SOUTHERN MOUNTAINEERS, 1109, 1683.
 SOUTHERN STATES, education, 805, 1471 (7), 1669.
 SPAIN, education, 841.
 SPANISH AMERICA. *See* LATIN-AMERICAN STATES.
 SPANISH LANGUAGE, teaching, 1941.
 Sparks, E. E., 1306 (1).
 SPARTANBURG, S. C. TEXTILE INSTITUTE, 1182.
 Spaulding, F. E., 177 (20), 700 (3).
 Spaulding, T. M., 1567.
 SPECIAL CLASSES, 1267, 1666 (19). *See also* DEFEC-
 TIVES; EXCEPTIONAL CHILDREN.
 SPECIAL STUDENTS, 1662 (5)-(7).
 SPRELLING, 244, 919-921, 1505, 1715, 1948; simplified,
 1306 (4).
 Spence, P. S., 1562.
 Spillane, Richard, 197.
 Spiller, Gustav, 1425.
 Spranger, Eduard, 1478.
 Springer, F. W., 24.
 Springer, Isidore, 708.
 SPRINGFIELD, ILL., education, 837; recreation, 2028.
 SPRINGFIELD, MASS., kindergarten, 455.
 Spry, Walter, 1654 (1).
 Spühler, J., 2053.
 SQUINTING, 1111.
 Squires, V. P., 815 (11).
 STANDARDIZATION, high schools, 1012, 1979.
 Stanton, B. F., 1311 (4), 1657 (14).
 STATE AID, 177 (23), 626 (10).
 State association of district superintendents of the
 state of New York, 1888.
 STATE UNIVERSITIES, 94, 96, 176 (1) (6)-(8), 391,
 1657 (2).
 STATISTICS, university, 176 (3); registration, 666.
 Staton, G. D., 1664 (15).
 Stearnes, R. C., 819 (9).
 Stearns, A. E., 329.
 Stearns, H. E., 108.
 Stearns, W. N., 345, 826 (2).
 Steel, Miss K., 972.
 Steeper, H. T., 445.
 Steffens, Lincoln, 694.
 Stelsner, Helene F., 721 (18).
 Stephani, G., 726.
 Stephani, P., 314.
 Stephens, M. B., 395 (4), (6), 811 (7) (14), 812 (1),
 1659 (1).
 Stern, H., 1711.
 Stern, L. W., 616.
 Stern, Leo, 1474 (1).
 Stern, William, 1502.
 Stevens, F. L., 1848.
 Stevens, W. Le C., 104.
 Stevenson, Morley, 1167.
 Stewart, C. A., 330.

- Stewart, Isabel M., 3 (1), 1660 (4).
 Stewart, J. S., 79.
 Stewart, Jane A., 1444.
 Stewart, P. F., 1664 (2).
 Stilllich, Oscar, 1482 (V).
 Stillwell, Katherine M., 1687.
 Stimson, R. W., 776.
 Stocker, Augustine, 1663 (3).
 Stockton, H. J., 827 (26).
 Stokes, A. P., 1432, 1568.
 Stone, A. F., 5 (4).
 Stone, C. R., 1687.
 Stone, Julia M., 64.
 Stone, M. S., 801 (3).
 Stone, T. H., 1411.
 Stone, W. E., 1819.
 Stone, W. H., 823 (8).
STONE TEST, 27.
 Stoner, Winifred S., 879, 1304 (7), 1694.
 Storey, T. A., 721 (17), 1766 (18).
STORIES AND STORY TELLING, 32, 620, 623, 1661 (5).
 Storm, A. V., 177 (46).
 Stott, R. G., 1657 (3).
 Stout, J. E., 1895, 1961.
 Stout, O. V. P., 680 (3).
 Strachan, Alexander, 1889 (21).
 Straus, O. S., 2075.
 Strayer, D. W., 1743.
 Strayer, G. D., 177 (27), 597, 700 (1), 823 (1) (3), 825 (5).
 Strong, Alice C., 31.
 Strong, Ann G., 1766 (16).
 Strong, Frank, 176 (13), 687.
 Strong, H. A., 1744.
 Strother, J. C., 1657 (16).
 Strout, J. W., 261.
 Strunsky, Simeon, 1487.
 Stuart, D. D. V., Jr., 904.
 Stuart, M. H., 177 (38).
 Stuart, R. R., 177 (62).
 Studentisch-pädagogische tagung, Breslau, 603.
 STUDENTS, college, 88, 605, 819 (20), 1050, 1058, 1065, 1391, 1662 (5)-(7), 1786.
STUDIES. See **CORRELATION OF STUDIES**.
STUDY, method, 882, 1374; supervised, 14.
 Sturm, Marie, 2071.
STUTTERING, 316, 889.
 Suban-Mabire, C., 1459.
SUBNORMAL CHILDREN. See **DEFECTIVES; EXCEPTIONAL CHILDREN; FREEBLE-MINDED**.
 Sudeley, —, 35.
 Sullivan, James, 807 (4), 1766 (14).
 Sullivan, Margaret, 397 (5).
 Summer, C. W., 576.
SUMMER CAMPS, 914.
SUMMER SCHOOLS, 1271.
SUMMER WORK, engineering, 817 (13); surveying, 817 (10).
SUNDAY SCHOOLS, 133, 342-343, 748, 1163, 1167, 1169, 1620, 2035.
SUPERINTENDENTS, 398 (7), 710, 1025, 1090, 1666, (12); county, 823 (7)-(8), 1661 (17), 1664 (2) (15), 2001; district, 1888; tenure, 299, 1089.
SUPERVISION, 490, 825 (5), 997, 1306 (17), 1471 (11); county, 709, 1571, 1656 (9); city, 177 (10); rural, 260, 660 See also **ATHLETICS**, supervision.
SURVEYING, 817 (10).
SURVEYS, bibliography, 816; educational, 11, 106, 181 (7)-(9), 190, 198-199, 295, 300, 396 (3), 409-410, 489, 597, 700 (1), 706, 708, 816 (1) (2), 837, 840, 853, 996, 1074, 1185, 1366, 1404, 1473 (1), 1840, 1891, 1971, 1973, 1976, 2006; playground, 1126; recreation, 2028; religious, 1754; rural, 394 (3), 1759-1760; sanitary, 1297, 1543; social, 1542; vocational education, 358, 1840.
 Sutherland, W. J., 243.
 Sutton, W. S., 181 (4), 709, 821 (2), 852, 1664 (9).
 Suzzallo, Henry, 177 (25).
 Swain, Joseph, 177 (28), 816 (1), 1858.
 Swan, L. O., 398 (4).
 Swearingen, J. E., 4 (3).
SWEDEN, education, 1801 (33).
 Sweeney, J. W., 397 (5).
 Sweeny, Mary E., 819 (17).
 Swift, E. J., 905.
 Swift, H. T., 244.
SWITZERLAND, education, 390, 819 (1), 1301 (35).
 Syford, Ethel, 52.

T.

TACOMA, WASH., defective children, 2078.
 Taft, W. H., 695, 1400.
TAGORE, R. N., 915.
 Tapper, Thomas, 1745.
 Tarbell, Ida M., 752 (11).
 Tate, W. K., 390, 819 (1), 998, 1473 (2).
 Tavernire, Eugene, 1896.
TAXATION, 269, 459, 1077, 1661 (18).
 Taylor, A. R., 604.
 Taylor, C. K., 1132, 2034.
 Taylor, E. H., 1503.
 Taylor, E. L., 766.
 Taylor, H. L., 556.
 Taylor, Hoy, 1661 (10).
 Taylor, J. M., 1257.
 Taylor, J. S., 918, 1625, 1999.
TEACHERS, 4 (3), 80-87, 177 (14) (19) (25), 181, 276, 393 (3), 395 (4), 398 (1), 676, 678, 821 (1), 823 (4), 827 (6), 828 (2), 830 (3), 1306 (3), 1307 (1), 1551-1553, 1658 (2), 1770-1781, 1889 (22), 1983-1992; appointment, 473, 802 (14), 1658 (15); certification, 84, 827 (20), 1022, 1771; efficiency, 177 (21), 1661 (10); high school, 274-275, 826 (3) (4); married women, 87; North Carolina, 1661 (2); pensions, 81, 397 (7), 802 (12)-(13), 1293, 1657 (5), 1899 (8); qualifications, 674, 1302 (3); rating, 909, 1078, 1085, 1303, 1383, 1555, 1772; registration, 676; rural schools, 255, 661, 700 (7), 701 (9), 1664 (3), 1899 (9); salaries, 177 (18) (28), 802 (15), 815 (7), 1026, 1032, 1040, 1298, 1309 (3), 1379-1380, 1774, 1986; training, 67, 177 (34) (50) (51), 255, 274-276, 392 (7), 470-474, 661, 673-679, 700 (5) (7), 701 (7)-(9), 748, 805 (4), 826 (4), 827 (8), 1018-1032, 1259, 1301 (24), 1311 (3), 1378-1384, 1471 (7)-(9), 1550-1556, 1639-1640, 1657 (17), 1658 (5), 1664 (3), 1721, 1761, 1771, 1899 (9), 1987-1989, 1991, 2035, 2094; women, 306, 673, 675.
TEACHERS' AGENCIES, 1556; state, 181 (6).
TEACHERS' INSTITUTES, 823 (11), 1311 (4), 1776, 1780-1781.
TEACHING, 13-25, 177 (16), 202-215, 413-427, 599-604, 855-882, 1292, 1329-1337, 1498-1493, 1684-1698, 1899 (25), 1998-1999.
TECHNICAL EDUCATION, 531, 540, 693. See also **INDUSTRIAL EDUCATION; MANUAL TRAINING; PROFESSIONAL EDUCATION; VOCATIONAL EDUCATION**.

Teed, A. V., 999.
 Tekssler, Joseph, 557.
 TEMPERANCE, 648, 1656 (11).
 Temple, W., 751.
 Tennessee. Supreme Court, 697.
 Tenney, A. F., 529.
 Terman, L. M., 815, 506, 814 (4), 1107, 1116, 1918.
 Terrell, J. B., 672.
 Terrell, R. F., 271.
 Terry, P. W., 245.
 TESTS. *See* MENTAL TESTS; PHYSICAL TESTS. *Also under name of test.*
 TEXAS, rural schools, 1544.
 Texas state teachers' association, 1664.
 TEXTBOOKS, 491, 1661 (12); government control, 1069, 1076, 1473 (3) (4) (8); Ontario, 819 (8).
 TEXTILE INSTITUTE, SPARTANBURG, S. C., 1182.
 Thatcher, O. J., 198.
 THEATER AND EDUCATION, 1472 (2).
 THEMES, 808 (1).
 THEOLOGICAL EDUCATION, 1432.
 THINKING, 829 (8).
 Thom, Reinhard, 1133.
 Thomas, A. D., 827 (22).
 Thomas, Calvin, 1479.
 Thomas, E. K., 516.
 Thomas, F. W., 767.
 Thomas, J. M., 1063.
 Thomas, W. S., 1766 (4).
 Thompson, A. C., 1309 (6).
 Thompson, F. E., 181 (1).
 Thompson, George, 539.
 Thompson, R. R., 821 (3).
 Thompson, W. O., 1311 (8).
 Thornburgh, W. B., 2005.
 Thorndike, E. L., 246, 396 (7), 429, 617, 958, 1712-1713, 1919-1921.
 THORNDIKE SCALE, 1709, 1713.
 Threadgill, Mrs. John, 74.
 THRIFT, training, 1304 (4).
 Thurber, E. A., 880.
 Thwing, C. F., 160, 485, 681 (1), 1064-1065.
 Tierney, R. H., 1336.
 TOBACCO HABIT, 723.
 Tobin, E. J., 815 (8).
 TOBIN, E. J., 73, 1541.
 Tönnies, E., 948.
 Tombo, Rudolf, jr., 289, 696.
 TOMBO, RUDOLF, jr., 1398, 1479.
 TOMSK UNIVERSITY, 412.
 Tooke, Frances, 180 (6).
 Tout, William, 1746.
 Tower, W. E., 392 (9).
 TOWNSHIP HIGH SCHOOL, DE KALB, 769.
 Tozier, Josephine, 53.
 TRACHOMA, 1109.
 Tracy, Catherine J., 1750.
 TRADE AGREEMENTS, 1445.
 TRADE SCHOOLS, 1666 (17), 1885. *See also* INDUSTRIAL EDUCATION; VOCATIONAL EDUCATION.
 Träckner, C., 1554.
 Trafton, G. H., 646.
 Trams, A. F., 523.
 TRAVELING LIBRARIES, 384.
 TRAVELING LIBRARY COMMISSIONS, 74.
 Traver, L. R., 262.
 Trendley, Mary, 54.

Trensch, G., 598.
 Trettien, A. W., 1121.
 Trever, A. A., 1963.
 Trost, W., 446.
 Troutman, R. B., 1153.
 TRUANCY. *See* DELINQUENCY.
 True, A. C., 802 (1) (2), 2057.
 True, Blanche, 826 (12).
 True, Ruth S., 2083.
 Trusler, H. R., 1088.
 TUBERCULOSIS, prevention and care, 721 (9).
 Tucker, A. C., 316.
 Tucker, Louise E., 588.
 Tucker, R. H., 1658 (23).
 Tuckey, E. N., 1695.
 Tuell, Annie K., 1964.
 Tufts, J. H., 1156, 1618.
 TUITION CHARGES, public schools, 711, 1656 (6).
 TURKEY, education, 2075.
 TUSKEGEE INSTITUTE, 665.
 TUTORIAL CLASSES, university, 377.
 Tuttle, A. E., 829 (1).
 Tuttle, Edith M., 664.
 Twiss, G. R., 1766 (12).
 Tyler, L. G., 1401.
 TYPEWRITING, study, 901.

U.

Underwood, G. B., 1142.
 UNGRADED CLASSES, 1267, 1666 (19). *See also* DEFECTIVES; EXCEPTIONAL CHILDREN.
 UNION HIGH SCHOOL, GRAND RAPIDS, 572.
 UNITED STATES, education, 588, 823 (1), 826 (1), 829 (4), 1309 (5), 1321, 1475 (1), 1664 (8), 1666 (6), 1893, 1895, 1907; government schools, 1301 (28); higher education, 478, 480, 485, 681, 1393; international relations, 1056; navy, educational work, 812 (4); school law, 353, 389, 577 (1), 1088, 1301 (43); territorial possessions, 1301 (29); university extension, 1269.
 United States. Bureau of education, 386, 391, 1301.
 UNITED STATES. BUREAU OF EDUCATION, 189, 587, 1564; Division of higher education, 1557; Library, 1469 (5); publications, 169-173, 388-391, 577-580, 1292-1301, 1877-1885, 2091-2094.
 United States. Commission on national aid to vocational education, 1198, 1893.
 UNITED STATES. DEPT. OF AGRICULTURE, 802 (5) (6), 1304 (10); rural organization service, 802 (3).
 UNITED STATES. DEPT. OF THE INTERIOR, 1304 (12).
 UNIVERSITIES AND COLLEGES, 803 (4), 827 (17), 1023-1067, 2067-2068; Austria, 1399; Bible study, 824 (12); Canada, 281, 699; city, 90, 1663 (2), 2068 (3); crediting, 692; finance, 176 (11), 278, 1057; France, 1052; Germany, 1039, 1788; industrial, 1657 (1); libraries, 803 (2) (3), 1875; Massachusetts, 1054; morality, 477, 681 (5); presidents, 177 (44); registration, 289; religious education, 345; religious life, 131-132, 394 (4), 1157, 1162; special students, 1662 (5)-(7); standardization, 1656 (3); state, 94, 96, 176 (1) (6)-(8), 391, 1657 (2); United States, 485, 681, 1393. *See also* ADMINISTRATION, universities and colleges; COLLEGE PROFESSORS; COLLEGE STUDENTS; DENOMINATIONAL COLLEGES; HIGHER EDUCATION; LAND-GRANT COLLEGES.

UNIVERSITY DRAMA, 1312.

UNIVERSITY EXTENSION, 751, 1299, 1306 (14). *See also* EDUCATION EXTENSION.

UNIVERSITY FARM SCHOOL, DAVIS, CAL., 665.

UNIVERSITY TUTORIAL CLASSES, 377.

Updegraff, Harlan, 397 (10).

V.

VACATION EARNINGS, 143.

VACATION SCHOOLS, 914, 1661 (13).

Valette, R., 379.

Vance, W. McK., 710, 1090.

VANDERBILT UNIVERSITY, 697.

Vanderwalker, Nina C., 1301 (7), 1364, 1666 (15).

Van Kleeck, Mary, 2072.

Van Sickle, J. H., 1301 (6).

VAN VLISSINGEN SCHOOL, ROSELAND, ILL., 1720.

VASSAR COLLEGE, 1257.

Vaughan, V. C., 1696.

Vaughn, S. J., 1626, 1665 (13).

Venn, John, 105.

VENTILATION, 114-115, 1666 (13).

VERMONT, education, 199, 484, 840.

VERMONT EDUCATION SURVEY, 409, 597.

Vermont educational commission, 199, 840, 1681.

Vermont state teachers association, 5, 829.

Verrill, A. H., 1449.

VETERINARY MEDICINE, study, 150.

Victoria university of Manchester, Dept. of education, 86.

Vinaya-Kumāra Sarkār, 215.

Vincent, G. E., 687, 1273.

Vinogradoff, Paul, 1682.

VIRGINIA, education, 159, 672.

Virginia. State board of health, 1297.

Virginia. State dept. of education, 1297.

Virginia state teachers' association, 830.

Virginia University, 370, 1297.

VIRGINIA. UNIVERSITY, 370, 559.

Virginia. University. Rural life conference, 980.

VISUAL INSTRUCTION, 910.

Vivaldi-Coaracy, V. de., 1199.

Voaden, J., 1533.

VOCABULARIES, children's, 833.

VOCATIONAL EDUCATION, 137-147, 177, (52) (55), 346-358, 392 (6), 394 (1), 395 (8), 396 (6), 397 (8), 413, 468, 518, 530-541, 564, 596, 776, 800, 805 (2) (6), 811 (10)-(12), 814 (5)-(6), 815 (9) (10), 824 (4) (5), 825 (4), 826 (5), 827 (9), 828 (1), 877-878, 1170-1201, 1219, 1301 (11), 1309 (4), 1326, 1330, 1370 (3), 1433-1446, 1471 (16), 1529, 1621-1626, 1653 (8), 1656 (4) (8), 1667 (6), 1665 (3) (7), 1830-1844, 1893, 2041-2053; bibliography, 1293; dual control, 752 (1) (2); Indiana, 1657 (24); North Carolina, 1661 (19); surveys, 358, 1840. *See also* INDUSTRIAL EDUCATION; MANUAL TRAINING; PROFESSIONAL EDUCATION; TECHNICAL EDUCATION; TRADE SCHOOLS.

VOCATIONAL GUIDANCE, 26, 177 (55), 359-360, 392 (1), 541-544, 580, 752 (7) (10), 768-772, 824 (6), 1202-1208, 1300, 1302 (7) (9), 1447, 1469 (2), 1627-1630, 1666 (3) (10), 1837, 1845-1846, 2054; bibliography, 1293.

Vocational guidance association. *See* National vocational guidance association.

Vogel, P., 187.

Volkmar, Hilda, 1097.

Vuillemin, Paul, 1232.

W.

WAGNER, C. A., 2015.

Wagner, Siegfried, 174 (1).

Waite, E. F., 130.

Waldron, J. A., 1653 (12).

Walker, J. T. A., 721 (7).

Waller, N. W., 1982.

Walkley, R. L., 1878.

Wall, Edward, 698.

Wallis, Graham, 1066.

Waller, O. L., 817 (8).

Wallin, J. E. W., 618, 827 (13), 1117, 1504.

WANDERVOGEL, 1481.

Ward, Clarence, 1067.

Ward, E. J., 1304 (8), 1611.

Ward, Florence E., 61.

Ward, W. B., 1657 (26).

Ward, Wilfrid, 1168.

Wardell, Harriet S., 619, 2014.

Warner, A. B., 1337.

Warner, E. F., 1763.

Warner, J. O., 1241.

Warnock, A. R., 1570.

Warren, H. C., 1794.

Warren, Irene, 1291, 1876.

Warshaw, J., 1308 (2).

Washington, B. T., 1867.

WASHINGTON, D. C., school children, 1593.

WASHINGTON (STATE), education, 401.

Washington (State). University, 853.

Waters, H. J., 802 (7).

Watkins, D. E., 449.

Watson, Foster, 184, 1673.

Watson, R. J., 827 (10).

Watts, R. L., 802 (15).

WATTS, Mrs. ROGER, 740.

Wayland, J. W., 1747.

Weaver, Mrs. C. P., 461.

Weaver, E. W., 129.

WEAVING, 1658 (17).

Webb, Ella G. A., 1118.

Webb, H. E., 540.

Webb, Helen, 1122.

Weber, A. W., 1412.

Webster, A. G., 381.

Weet, H. S., 109.

Welchard, E., 1965.

Weigle, L. A., 1662 (6).

Weill, Louis, 1966.

Weinberg, Margareta, 317, 1806.

Weiss, A. P., 1714.

Weissenfels, Dr. Hagenbrings-, 786.

Welch, F. A., 711, 1656 (6).

Welton, James, 1909.

WENTWORTH INSTITUTE, 817 (9).

Wenzlass, G. G., 1899 (9).

Werremeyer, D. W., 823 (14).

Wesbrook, F. F., 699.

West, A. F., 450.

West, J. E., 1304 (5).

West, Michael, 906.

WEST TECHNICAL HIGH SCHOOL, CLEVELAND, OHIO, 146.

Westermann, W. L., 1843.

Western drawing and manual training association, 1665.

WESTERN RESERVE UNIVERSITY, COLLEGE FOR WOMEN, 160.
 Westhoff, F. W., 822 (1).
 Wetherby, S. D., 1657 (12).
 Wettstein, Frances, 1264.
 Wetzell, W. A., 177 (60).
 WHEELER-GESSELLSCHAFT, 1563.
 Wheelock, C. F., 1549.
 Wheelock, C. W., 1888 (5).
 Wheelock, Lucy, 829 (5).
 Whipple, G. C., 1855.
 Whipple, G. M., 432, 616, 1766 (7).
 Whitaker, Mrs. H. K., 5 (6).
 Whitbeck, R. H., 1362.
 White, D. S., 272.
 White, E. M., 881.
 White, E. V., 1544.
 White, Mrs. Eva W., 752 (12), 1365.
 White, Jessie, 657.
 Whitehead, R. H., 558, 1223 (2).
 Whitehouse, J. H., 12.
 Whitney, A. S., 181 (3).
 Whitney, Elizabeth A., 814 (6).
 Whitney, F. L., 469.
 Whitney, Marian P., 818 (2).
 Whittatt, Rose, 273.
 Whittaker, H. W., 1897.
 Wicke, R., 65.
 Widdoe, O. J. P., 1301 (18).
 Wight, J. G., 147.
 Wightman, H. J., 827 (2), 1446.
 Wilber, H. Z., 1967.
 Wilcox, W. H., 647.
 Wild, Laura H., 364.
 Wile, Ada, 398 (6).
 Wile, I. S., 721 (2).
 Wiles, E. P., 823 (9).
 Wilkie, A. W., 1642.
 Willard, Florence, 1217.
 Willard, Meriel, 1217.
 Williams, A. M., 426.
 Williams, E. H., 648, 1594.
 Williams, G. H., 1630.
 Williams, Jessamine C., 1634.
 Williams, M. H., 1342.
 Williams, Mabel C., 1471 (22).
 Williams, Mary E., 541.
 Williams, N. D., 854.
 Williams, Sherman, 1888 (3) (16).
 Williams, Talcott, 1402.
 Williams, W. T. B., 791.
 Williamson, Robert, 1258.
 Williston, A. L., 177 (54), 817 (9).
 Willson, R. N., 1123.
 Wilson, Albert, 25.
 Wilson, Elisabeth K., 2087.
 Wilson, G. M., 1844.
 Wilson, H. B., 177 (19), 500, 815 (12), 882, 1697.
 Wilson, L. A., 1201.
 Wilson, L. B., 1306 (1).
 Wilson, L. N., 584.
 Wilson, Martha, 1469 (6), 1652.
 Wilson, R. H., 1595.
 Wilson, S. T., 1683.
 Wims, J. H., 1169.
 Wimple, Dilla E., 1899 (10) (15).

Winch, W. H., 907, 956, 1505, 1923.
 Winderlich, R., 360.
 Winge, A. P., 1534.
 Winnens, J., 1384.
 Winship, A. E., 177 (50), 200, 801 (5), 969, 1032, 1658 (8).
 Winslow, C. E. A., 115.
 Winter, I. L., 933.
 Winterburn, Florence H., 1751.
 Wirt, W. A., 397 (3).
 Wirt, William, 1871.
 Wirtz, Heinrich, 1715.
 WISCONSIN, continuation schools, 1275, 1435; high schools, 1666 (7); vocational education, 2042.
 Wisconsin city superintendents' association, 2006.
 WISCONSIN IDEA. *See* WISCONSIN. UNIVERSITY.
 WISCONSIN STUDENT WORKERS' UNION, 1569.
 Wisconsin teachers' association, 1666.
 WISCONSIN. UNIVERSITY, 376, 378, 651, 1569, 1784.
 Wise, S. S., 566.
 Wiser, W. G., 486.
 Witham, E. C., 908-909, 1555, 1924.
 Witmer, Lightner, 474, 658, 1301 (20), 1306 (9) (12) (16).
 Witte, K. H. G., *Pastor*, 427.
 WITTE, KARL, 427.
 Wohlrab, E. G., 247.
 Wolcott, J. D., 1469 (5).
 Wolfe, A. B., 487, 649, 681 (8).
 Wolfson, A. M., 807 (2).
 Wollenhaupt, W. F., 1556.
 Womack, J. P., 75.
 WOMAN, agricultural education, 1211; dress, 827 (12); education, 153-160, 368-370, 559-564, 785-789, 815 (6), 818, 819 (23), 1249-1258, 1458-1459, 1636-1640, 1861-1864, 2069-2072; higher education, 182, 806, 2069; industrial education, 752 (11)-(13); Prussia, 2071; teachers, 87, 206, 673, 675. *See also* COEDUCATION; GIRLS.
 WOMEN'S CLUBS, 1864.
 WOMEN'S TRADE-UNION LEAGUE, 1191, 1256.
 Wood, E. E., 1657 (21), 1658 (12).
 Wood, G. C., 650.
 Wood, H. A., 1469 (1).
 Wood, Leonard, 802 (11), 1245.
 Wood, Mary I., 1864.
 Wood, T. D., 177 (26) (29).
 Woodburn, E. C., 1889 (26).
 Woodley, F. B., 1307 (1).
 Woods, A. F., 1306 (20).
 Woodward, H. A., 821 (5).
 Woodward, R. S., 290.
 Woodworth, L. D., 1222.
 Woolley, E. C., 651.
 Woolley, Mary E., 681 (3), 815 (6).
 WORCESTER HIGH SCHOOL FOR GIRLS, ENG., 788.
 WORKING MEN, education, 751, 752 (8).
 World's student Christian federation, 1157.
 Wormser, I. M., 1856.
 Worst, J. H., 177 (68), 248, 802 (9).
 Wray, G. B., 1807.
 Wright, G. S., 5 (1).
 Wright, H. F., 946.
 Wright, P. B., 1469 (4).
 Wright, R. H., 1661 (19).
 Wright, Richardson, 412.

WRITING. *See* HANDWRITING.

Wulffing, C. G., 1666 (11).

Wyche, R. T., 1661 (5).

WYNEKEN, G. A., 1484.

Y.

YALE UNIVERSITY, 486, 1568.

Yerker, R. M., 1925.

Yocum, A. D., 83 (17), 177 (20), 395 (2), 652, 712, 1413, 1698.

YOCUM, A. D., 858.

Yoder, W. A., 1430.

Young, C. E., 56.

YOUNG, Mrs. ELLA F., 107, 302.

Young, G. H., 1829.

Young, Laura P., 1143, 1304 (2).

Young, O. O., 1889.

Young, Rose, 87.

YOUNG MEN'S CHRISTIAN ASSOCIATIONS, 72, 126,

176 (7), 993 (3)-(5), 1301 (26), 1867.

YOUTH. *See* ADOLESCENCE.

Z.

Zellers, J. F., 1017.

Zenz, Wilhelm, 188.

Zimmern, Dorothy M., 800.

Zirkle, K. W., 624.



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INTRODUCTORY NOTES.

Some prominent books of the month are the following, the numbers in parentheses referring to the full entries in this record: Bruce, *Psychology and parenthood* (722); Dickinson, *Music and the higher education* (734); Wisconsin state board of public affairs, *Conditions and needs of Wisconsin's normal schools* (761); Deming, *Yale yesterdays* (766); Sharpless, *The American college* (776); Wisconsin state board of public affairs, *Survey of the University of Wisconsin* (779); Horn, *Participation of pupils in class-room recitations* (793); Mills, *American school building standards* (799); Lee, *Play in education* (810); Cope, *Religious education in the family* (824).

Vol. 1, no. 2, June 1915, of the new periodical, *Immigrants in America review*, published quarterly by the Committee for immigrants in America, 95 Madison avenue, New York city, contains among its contributions the following articles of special interest: The Y. M. C. A. teaching foreign-speaking men, by Peter Roberts, p. 18-23; Schools in temporary construction camps, by Jane E. Robbins, p. 28-30; The city's responsibility to the immigrant, by Raymond E. Cole, p. 36-41; Survey of adult immigrant education, by H. H. Wheaton, specialist in the education of immigrants, U. S. Bureau of education, p. 42-65.

With this issue, the record suspends publication for the months of July and August. The next number will appear in September.

Only publications of the Bureau of Education are available for free distribution by this office. All others here listed may ordinarily be obtained from their respective publishers, either directly

or through a dealer, or, in the case of an association publication, from the secretary of the issuing organization.

Books, pamphlets, etc., intended for inclusion in this record should be sent to the library of the Bureau of Education, Washington, D. C.

PUBLICATIONS OF ASSOCIATIONS.

688. **Association of colleges and secondary schools of the Southern states.** Proceedings of the twentieth annual meeting . . . University of Virginia, October 22-23, 1914. Nashville, Tenn., Publishing house of the Methodist Episcopal church, South. 100 p. 8°. (B. E. Young, secretary, Vanderbilt university, Nashville, Tenn.)

Contains: 1. J. C. Walker: The professional standing of teachers, p. 30-39. 2. Elisabeth A. Colton: Report of the committee on the junior college problem, p. 40-49. 3. F. P. Keppel: Economy of time in college education, p. 50-54. 4. T. S. Baker: The place and mission of the private school, p. 57-67. 5. W. H. Davis: Ways and means of increasing the efficiency of the private secondary schools, p. 68-74. 6. A. L. Hall-Quest: Educational values and American needs, p. 75-91. 7. W. S. Learned: The teacher's colleague, p. 92-105.

689. **Illinois state teachers' association.** Journal of proceedings of the sixtieth annual meeting . . . held at Springfield, Ill., December 29-31, 1913. 192 p. 8°. (G. W. Conn, jr., secretary, Woodstock, Ill.)

Contains: 1. F. G. Blair: From chance to certainty in education, p. 38-42. 2. W. P. Morgan: Is there any science in education, p. 53-61. 3. Eugene Davenport: Blending the technical and the non-technical in education, p. 65-71. 4. L. D. Coffman: The rating of teachers, p. 82-88. 5. W. P. Morgan: Vocational education, p. 100-4. 6. H. J. Barten: The classics in the high schools and colleges of the Middle West, p. 106-12. 7. W. B. Owen: Moral education in the high school, p. 120-24. 8. Zonia Baker: A need of a stronger and more vigorous professional spirit among high school teachers, p. 124-28. 9. C. H. Johnston: Education and the emotions, p. 128-31. 10. C. E. Allen: The place of the humanities in education, p. 134-39. 11. C. E. Holley: The best beginning age, p. 151-55. 12. C. L. Harlan: Relation of size of classes to schoolroom efficiency, p. 155-61. 13. C. H. Taylor: Comparison of the arithmetical abilities of rural and city school children, p. 161-64. 14. W. H. Packard: The attitude of the school toward the teaching of sex hygiene, p. 173-79.

690. **Iowa state teachers' association.** Proceedings of the sixtieth annual session . . . held at Des Moines, Iowa, November 5-7, 1914. 196 p. 8°. (O. E. Smith, secretary, Indianola, Iowa.)

Contains: 1. J. E. Steut: Tests of educational achievement, p. 27-36. 2. A. M. Deyoe: Public school activities in Iowa, p. 36-51. 3. G. M. Wilson: The meaning of the school survey to the city superintendent, p. 59-64. 4. W. S. Hendrixson: Vocational focus in the college course, p. 66-72. 5. J. C. Reed: The training a commercial teacher should have and what he should be expected to do, p. 124-31. 6. Julia W. Abbot: The relation between the kindergarten and the elementary school, p. 135-43.

691. **Minnesota educational association.** Journal of proceedings and addresses of the fifty-second annual meeting, held at St. Paul, Minn., October 21-24, 1914. Minneapolis, Minn., 1915. 231 p. 8°. (M. E. A. News-letter, vol. 2, no. 1) (E. D. Pennell, secretary, Minneapolis, Minn.) 5 cents postage.

Contains: 1. Henry Suzzallo: The new social point of view in education, p. 64-70. 2. J. B. Davis: Vocational and moral guidance a function of the public schools, p. 71-80. 3. W. T. Foster: The professional spirit, p. 81-88. 4. Theodore Soares: Moral education and world peace, p. 89-95. 5. J. E. Freeman: The school as a moral force, p. 96-101. 6. Florence Kelley: School children who work, p. 123-29. 7. Cora W. Stewart: Moonlight schools in Kentucky, p. 130-38. 8. A. E. Koenig: Suggestions toward standardizing German instruction, p. 155-62. 9. G. J. Miller: Essentials of modern geography and criteria for their determination, p. 166-72. 10. L. L. Everly: Relation of the county superintendent to the teacher, p. 205-10. 11. Caroline Crawford: The place and value of the dramatic arts in education, p. 213-21.

692. **Missouri state teachers' association.** Proceedings of the fifty-third annual meeting . . . held at St. Joseph, Mo., November 12-14, 1914. Bulletin Missouri state teachers' association, 1, nos. 1 and 2, January, April 1915. (E. M. Carter, secretary, Cape Girardeau, Mo.)

Contains: No. 1.—1. Herbert Pryor: The Missouri school survey, p. 37-39. 2. E. M. Violette: Missouri history in the schools, p. 61-67. 3. Bessie M. Whitely: The orchestra in the grade school, p. 74-76. No. 2.—4. H. W. Foght: Efficiency and preparation of rural school teachers, p. 10-13. 5. W. K. Tate: The rural school of the future, p. 34-36. 6. M. A. O'Rear: What are the essentials in a rural school course of eight years, p. 37-41. 7. G. W. Reavis: The relation of the rural school to the needs of the people, p. 48-52. 8. W. K. Tate: Some country schools I have visited, p. 54-58. 9. C. A. Greene: Desirable changes in the present organization of the public schools—the high school, p. 62-67. 10. A. W. Trettien: Differentiation of the field in universities, colleges and normal schools in the training of teachers, p. 72-78

693. **North Carolina teachers' assembly.** Proceedings and addresses of the thirty-first annual session . . . at Charlotte, November 25-28, 1914. Raleigh, Edwards & Broughton printing co., 1915. 279 p. 8°. (E. E. Sams, secretary, Raleigh, N. C.)

Contains: 1. Marietta L. Johnson: The experiment at Fairhope, p. 56-60. 2. Zebulon Judd: A professional standard for teachers, p. 99-104. 3. N. W. Walker: A high school curriculum without a foreign language. Can such a curriculum be constructed that will put high school graduates into North Carolina colleges without condition? If not, why not? p. 160-79. 4. I. C. Griffin: Normal training in high schools, p. 195-200. 5. Suggestions for the training of teachers in service—From the viewpoint of the teacher [by] Antoinette Black, p. 200-2; From the viewpoint of the principal [by] J. M. Davis, p. 202-5; From the viewpoint of the normal school [by] R. A. Merritt, p. 205-7; From the viewpoint of the college [by] H. W. Chase, p. 207-8; From the viewpoint of the state department of education [by] N. C. Newbold, p. 208-11. 6. W. S. Pratt: The problems of standardization, p. 219-30. 7. T. P. Harrison: How can men be retained in the teaching profession? p. 233-38. 8. N. W. Walker: Permanent certificates for professional teachers, p. 241-59.

694. **Pennsylvania educational association.** County superintendents' department. Proceedings of the twelfth annual meeting at Harrisburg, December 29-30, 1914. Pennsylvania school journal, 63: 442-62, April 1915.

Contains: 1. R. O. Welfing: What constitutes a standard one-room school? p. 442-44. 2. F. E. Shambaugh: Standards in the recitation, p. 444-47. 3. T. A. Bock: Necessity for closer supervision, p. 447-50. 4. Frank Koehler: Professional training for young teachers, p. 450-53. 5. I. H. Mauser: How shall we get professionally trained teachers in the schools? p. 454-56. 6. Orton Lowe: Importance of rural schools of methods, p. 456-59. 7. T. S. Davis: How to keep pupils in school, p. 459-61.

695. **Pennsylvania educational association.** Department of city and borough superintendents. Proceedings of the thirty-fifth annual session at Harrisburg, December 29-30, 1914. Pennsylvania school journal, 63: 431-41, April 1915.

Contains: 1. C. F. Hoban: The salary question, p. 431-32. 2. G. E. Zerfoos: The grading of pupils, p. 433-35. 3. F. W. Wright: Waste or by-product from our elementary schools, p. 435-39. 4. I. B. Bush: Efficiency tests as applied to the work of the public schools, p. 440-41.

696. **Pennsylvania. University.** Schoolmen's week. Papers read at the meetings, April 13-17, 1915. Old Penn, 13: 997-1043, May 8, 1915.

Contains: 1. J. R. Smith: The rural school and rural life, p. 998-1000. 2. N. C. Schaeffer: More money for public schools, p. 1000-1002. 3. T. H. Briggs: The junior high school. Its advantages and disadvantages, p. 1002-7. 4. George Wheeler: The adaptability of the junior high school to large cities, p. 1007. 5. P. M. Harbold: Minimum standards for beginning teachers in rural schools of Pennsylvania, p. 1008-9. 6. G. M. Phillips: The normal schools as agencies for the preparation of rural teachers, p. 1010-12. 7. H. W. Foght: Rural teacher training through secondary schools, p. 1012-15. 8. H. W. Foght: Course of study in the rural schools, p. 1015-16; Discussion, p. 1016-18. 9. J. W. Sweeney: The county vs. the township as the local unit of school administration in Penn-

- sylvania, p. 1018-20. 10. A. C. Monahan: The relative advantages of the township and the county unit of organization for school administration, p. 1023-26. 11. C. N. Kendall: What should go into a city superintendent's report? p. 1026-30; Discussion, p. 1030-32. 12. O. P. Cornman: Standardization of educational records and reports, p. 1032-34. 13. J. H. Van Sickle: Individual vs. mass teaching in the elementary schools, p. 1034-35. 14. Harlan Updegraff: The measurement of the progress of pupils through the school, p. 1035-36.
697. South Dakota educational association. Proceedings of the thirty-second annual session. Held at Deadwood, October 21-23, 1914. Mitchell, S. D., Published by the Executive committee. 317 p. 8°. (J. C. Lindsey, secretary, Mitchell, S. D.)
- Contains: 1. W. I. Early: A factor of educational efficiency, p. 42-51. 2. C. H. Lugg: State superintendent of public instruction, p. 52-61. 3. Lilly M. E. Borresen: Organization of high school libraries, p. 101-7. 4. B. E. McProud: The interdependence of the high school and the college, p. 113-20. 5. E. K. Eyerly: The university and the state, p. 121-27. 6. H. C. Souder: How may we increase the number of eighth grade graduates? p. 138-41. 7. W. F. Bushnell: The relation of the school teacher to the physician, p. 187-96. 8. D. Mae Miller: Cooperation of music supervisor and teachers, p. 226-33. 9. Loretta McElburry: Aim and scope of a state course of study in sewing for rural and elementary schools, p. 245-52.

EDUCATIONAL HISTORY.

698. Hierl, Ernst. Die entstehung der neuen schule; geschichtliche grundlagen der pädagogik der gegenwart. Leipzig und Berlin, B. G. Teubner, 1914. 211 p. 8°.
- A book which leads the reader to a real understanding of the personal and impersonal factors which have worked toward the creation of "the new school." While the historical account is confined to German education, the general features of the educational movement depicted and the conclusions drawn are of universal significance and application.
699. Jernegan, Marcus W. The beginnings of public education in New England. School review, 23:319-30, May 1915.
- An interesting historical sketch. Effects of environment and general economic conditions in molding education in New England.
700. Kerschensteiner, Georg. Führende pädagogen der gegenwart über sich selbst. II. Zwanzig jahre im schulaufsichtsamte. Ein rückblick. Archiv für pädagogik. I. teil. Die pädagogische praxis, 3: 97-118, February 1915. Kerschensteiner's retrospect of his work.

CURRENT EDUCATIONAL CONDITIONS.

701. Ayres, Leonard P. School surveys. School and society, 1: 577-81, April 24, 1915.
- Takes up the survey movement and the definite characteristics of school surveys.
702. Bobbitt, John Franklin. The San Antonio public school system; a survey conducted by J. F. Bobbitt. San Antonio, Tex., The San Antonio school board, 1915. iv, 257 p. diags. 8°.
703. Gast, Paul. Wissenschaft und auswärtige kulturpolitik. Akademische rundschau, 3:228-37, April 1915.
- An account of the work, present and prospective, of the "Deutsch-Süd-amerikanische Institut," founded 1912, at Aachen.
704. Hardy, Edward L. The elementary school and the financial situation in California. Sierra educational news, 11:224-34, April 1915.
705. Murray, Gilbert. German scholarship. Quarterly review (London), 223: 330-39, April 1915.
- One of a series of articles on German "kultur." Says: "In sheer straightforward professional erudition Germany easily leads the way." Points out differences between English and German intellectualism.

706. National education and the war. *School world* (London), 17:161-69, May 1915.
A symposium dealing with systems of education which have been built up by the belligerent nations, especially the British and German systems. Effects upon national character, etc.
707. Nötzel, Karl. Das heutige Russland. Zur entwicklungsgeschichte der russischen seele. *Deutsche rundschau*, 41:92-113, 218-39, April, May, 1915.
An understanding and sympathetic interpretation, historical in form, of the social, intellectual, and spiritual life of Russia.
708. Richter, Johannes. Weltkrieg und erziehungsreform. *Arbeitschule*, 29:11-20, January 1915.
One of the more sane and thoughtful articles on the aims of education after the conclusion of the European war.
709. Sargeant, Ide G. Vermont and the Carnegie survey. *Journal of education*, 81:508-11, May 13, 1915.
The writer in this article criticises Dr. Pritchett for his words on the Vermont situation which appeared in the *North American review* for April.
710. Schremmer Wilhelm. Was lehrt uns der krige? *Neue bahnen*, 26:280-85, April 1915.
The war proves the need of, 1, obedience; 2, ideals; 3, the "einheitsschule": "a genuine national education built from the foundation up, and recognizing the unity of the people and the equality of all citizens"; 4, the recognition that there are educators besides the school; 5, the physical fitness of youth.
711. Walzel, Oskar. Zukunftsaufgaben deutscher kultur. *Internationale monatsschrift für wissenschaft, kunst, und technik*, 9:687-714, March 1915.
An interpretation of the German mind by one of the leading historians of German literature.

PEDAGOGICS AND DIDACTICS.

712. Bachman, Frank P. The quality of instruction versus the subject-matter of instruction. *Elementary school journal*, 15:491-97, May 1915.
Discusses the findings of school surveys recently made; causes assigned for poor instruction; and intimations of a more basic cause. Takes up subject of textbooks on history. Form of teaching gravitates toward "the level of appeal to memory and mechanical drill."
713. Conrad, Otto. Die höherbildung der rasse als aufgabe der pädagogik. *Deutsche schule*, 19:22-27, January 1915.
Sketches the pedagogical ideas of Jean Marie Guyau as expounded in his book "*Éducation et hérédité*" (1887) and compares Guyau's social standpoint with the individualistic standpoint of Nietzsche.
714. Gansberg, Fritz. Grundgedanken der modernen pädagogik. *Neue bahnen*, 26:159-76, January/February 1915.
An exposition of the fundamental principles of modern pedagogy—dictated by the needs of modern society, but as yet far too little realized in educational practice.
715. Hémon, Félix. La pédagogie de Pécaut d'après de nouveaux documents. (1^{re} article.) *Revue pédagogique*, 66:129-44, March 1915.
716. Kaufmann, Paul. Die grundgedanken der pädagogik Fr. W. Foersters—Darstellung und beurteilung. *Pädagogische warte*, 22:235-40, 287-92, March 15, April 1, 1915.
Paper says: "To the intellectualism, universalism, and 'politicism' (overstressing of the idea of the state and subordination of the individual) of Hegel, contemporary pedagogical reform opposes demands for the arbeitsschule, for art education, for individualistic and moral pedagogy. Fr. W. Foerster is the representative of this tendency."
717. Lincoln, Lillian I. Everyday pedagogy, with special application to the rural school. Boston, New York [etc.] Ginn and company [1915] viii, 310 p. 12°.

718. **Wapler, ———.** Die frage nach einem einheitlichen ziel der erziehung im hinblick auf die spannungen und gegensätze im modernen kulturleben. Pädagogische warte, 22:189-98, March 1, 1915.

A philosophical consideration of the possibility of a coherent aim of education, alive to the "winds of doctrine" and "streams of tendency" of contemporary times.

719. **Warstatt, Willi.** Der geist des Pfadfinders und Wandervogels. Sämern, heft 12:428-32, February 1915.

"Among the educative forces outside of family and school which have, within recent times, exerted an influence upon [German] youth, two are among those of first rank: the 'Pfadfinderbund,' upon the one hand, and the 'Wandervogel' upon the other."

The author draws an acutely and philosophically conceived distinction between the two organizations with respect to the spirit that informs them.

720. **Wills, E. V.** The educational theories of Friedrich Nietzsche. Virginia Journal of education, 8:427-30, April 1915.

EDUCATIONAL PSYCHOLOGY; CHILD STUDY.

721. **Ayres, Leonard P.** A measuring scale for ability in spelling. New York city, Division of education, Russell Sage foundation [1915] 58p. fold. chart. 12°.

722. **Bruce, H. Addington.** Psychology and parenthood. New York, Dodd, Mead & company, 1915. 293p. 12°.

Reviews and unifies, in non-technical language, the findings of modern psychology which bear especially on the laws of mental and moral growth. Author maintains that by making certain reforms, it is entirely feasible to develop mental and moral vigor in the mass of mankind to an astonishing degree.

723. **Cellérier, L.** La lutte pour la vérité (Hygiène de la vérité. Traitement du mensonge). Éducation, 7: 10-24, March 1915.

A psychological and pedagogical study of children's lies.

724. **Hintermann, O.** Die untersuchungen des psychologischen institutes über die geistige entwicklung der schulkinder. Pestalozzianum, n. f., 12: 1-6, January 1915.

States conclusions of psychological investigations conducted at the psychological institute of the University of Zurich, as follows: 1. The development of the number concept in children (K. Brandenberger. Die zahlenfassung beim schulkinde. Beiträge zur pädagogischen forschung, hrsg. v. Brahn und Dörning. Leipzig 1914). 2. The development of the faculty of judgment. 3. Learning to read according to the analytic and synthetic methods. 4. The development of space perception. 5. The course of study in natural sciences in the upper grades (7th and 8th classes).

725. **Simpson, B. R.** Reliability of estimates of general intelligence, with applications to appointments to positions. Journal of educational psychology, 6: 211-20, April 1915.

"An experimental study of the ranking of college graduates, and a suggested application of the method to the work of college appointment bureaus in the task of recommending men for positions."

SPECIAL METHODS OF INSTRUCTION.

726. **T., M.** Le cinématographe un danger intellectuel et moral pour l'enfance: à propos d'une enquête récente. Éducation, 7: 30-38, March 1915.

Résumé of a brochure by Vital Plas, "L'Enfant et le cinéma," Brussels, 1914, which is based upon an international inquiry by the Société belge de pédotechnie on the intellectual and moral effects of the "movies." The findings and conclusions of the inquiry were published in the Revue de pédotechnie.

SPECIAL SUBJECTS OF CURRICULUM.

727. **Association of high school teachers of English of New York city.** Reports of committees. Bulletin XVI, May 1915. 59p. 8°.
Contains: 1. E. T. Congdon: Some forms of co-operation in English composition teaching, p. 3-9. 2. Report of the committee on co-operation, p. 9-18. 3. G. P. F. Hobson: Co-operation between English and Latin, p. 19-22. 4. J. E. Peabody: Co-operation between English and biology, p. 22-25. 5. Maude M. Frank: Report of the committee on literature in the high school, p. 31-37. 6. Report of the committee on public speaking and dramatics, p. 45-49.
728. **Association of history teachers of the Middle States and Maryland.** Proceedings of the meetings held in 1914 at Trenton, N. J., and New York, N. Y. No. 12. 105p. 8°. (Edgar Dawson, secretary, Hunter college, New York, N. Y.)
Contains: 1. C. N. Kendall: The teaching of local history in the schools, p. 9-17; Discussion, p. 17-18. 2. A. C. Howland: The teaching of military history in the schools, p. 28-31. 3. S. B. Howe: Should military history be taught in our schools and colleges? p. 32-37. 4. J. H. Latané: The significance of local history, p. 38-43. 5. William Fairley: History teachers for secondary schools, p. 69-79; Discussion, p. 79-92.
729. **Music supervisors' national conference.** Eighth annual meeting at Pittsburgh, March 22-26, 1915. A summarized report of the sessions. School music, 16:19-50, March-April 1915.
Contains: 1. Earl Barnes: The relation of rhythmic exercises to music, p. 25-26, 28, 30. 2. P. P. Claxton: The place of music in national education, p. 30, 32, 34, 36. 3. K. W. Gehrkins: Ultimate ends in public school music, p. 44, 46, 48, 50.
730. **Abbott, Allan.** A course of study in English for a metropolitan academic high school. Teachers college record, 16:13-31, May 1915.
A study in the development of a course of study to meet particular social needs. The course outlined in the article was planned and in its main features carried out in the Horace Mann high school during the winters of 1912-1914.
731. **Bate, W. G.** An experiment in teaching a course in elementary sociology. School review, 23:331-40, May 1915.
A high school course in sociology and social problems. Satisfactory results attained in Mankato high school, Minnesota. Gives an outline of the course.
732. **Chandler, Frank W.** A creative approach to the study of literature. English journal, 4:281-91, May 1915.
The author has been conducting a course in literary appreciation at the University of Cincinnati. He assigns for study various types of literature and the pupils give oral and written reports on what they have read. They endeavor to express the spirit of the poems they have read in verses of their own. "Critical interpretation and appreciative creation complement each other."
733. **Conrad, Otto.** Fr. W. Foerster's idee der staatsbürgerlichen erziehung. Zeitschrift für lateinlose höhere schulen, 26:71-77, February 1915.
A brief exposition and a criticism of the leading ideas expounded by Foerster in his book: "Staatsbürgerliche erziehung. Prinzipienfragen politischer ethik und politischer pädagogik." 2d ed. 1914.
734. **Dickinson, Edward.** Music and the higher education. New York, C. Scribner's sons, 1915. 234 p. 12°.
CONTENTS.—Prelude: In a college music room.—1. The college and the fine arts.—2. Music in the college.—3. Teacher and critic: his preparation and his method.
735. **Dunn, Arthur William.** By what standard shall we judge the value of civic education? Boston teachers news letter, 3:4-10, May 1915.
Read before the American institute of instruction, July 1914.
736. **Gammans, Harold W.** The pupil who fails in secondary school English; how to teach him. Education, 35:565-70, May 1915.
Continued from February number. Value of supplementary reading to arouse interest, etc.

737. Handschin, Charles H. Problems in teaching modern languages. *Education*, 35:597-600, May 1915.
Advocates exercises in direct method based on the text; also texts dealing with the best authors.
738. Hosc, James Fleming. The essentials of composition and grammar. *School and society*, 1:581-87, April 24, 1915.
A paper read before the Department of superintendence of the National education association, at Cincinnati, Ohio, February 28, 1915.
Discusses the different scales and tests in composition and grammar.
739. Latham, Azubah J. The making of a festival, with some account of the Teachers college festivals of 1914 and 1915. *Teachers college record*, 16:44-60, May 1915.
740. Leavitt, Frank M., and Brown, Edith. History for prevocational boys. *Elementary school journal*, 15:463-75, May 1915.
Outlines course of study, purport being to give children an elementary appreciation of the evolution of the worker, particularly an understanding of the organizations of labor and capital as they exist today, and kindred topics.
Gives list of references: p. 474-75.
741. Mackie, Ransom A. The value of history. *Education*, 35: 560-64, May 1915.
Discusses the purpose and value of teaching history.
742. Walker, N. W. High school pupils tested on spelling. *North Carolina high school bulletin*, 6:70-76, April 1915.
A test conducted in the high schools of North Carolina. Gives the words used and the per cent of times each word was spelled correctly.

RURAL EDUCATION.

743. McBrien, J. L. Ideals in rural education. *Arkansas teacher*, 3: 2-4, May 1915.
744. ——— Teacher-training for rural schools in public high schools of the United States. *American school board journal*, 50:30, 32, 34-35, May 1915.
Also in *Missouri school journal*, 32:204-10, May 1915.
745. Osborn, Harriet B. The improvement of rural school grounds and interiors. *Education*, 35:555-59, May 1915.
Enough land should be provided for a school garden and a suitable playground. Advocates closer relations between the school and the grange.
746. Uriot, G. La dépopulation des campagnes. Ses causes. L'école peut-elle y porter remède? *Revue pédagogique*, 66:145-56, March 1915.
"To accomplish this delicate task"—of staying depopulation of the rural districts through emigration to the city and through decline of the birthrate—"it is necessary that the teacher himself be country-bred, one who knows and loves the fields."

SECONDARY EDUCATION.

747. Angell, James B. The junior college movement in high schools. *School review*, 23:289-302, May 1915.
Based upon data obtained from nineteen universities and seven colleges, members of the North central association, or institutions of like character. Thinks that such colleges will bring opportunities for advanced vocational training to thousands of students.
748. Douglass, Aubrey Augustus. The present status of the junior high school. *Pedagogical seminary*, 22: 252-74, June 1915.
749. Hoblit, Merritt L. The high school unit: quantity, quality, and credit. *School review*, 23:303-6, May 1915.
Says that a unit of high school work is very difficult to define in any other than a quantitative way.

750. **Inglis, Alexander.** A fundamental problem in the reorganization of the high school. *School review*, 23: 307-18, May 1915.

Says that the six-year high school plan will solve many of the perplexing problems in school organization, most of which center around the seventh and eighth grades of the elementary school and the first year of the high school.

751. ———. The socialization of the high school. *Teachers college record*, 16: 1-12, May 1915.

752. **Puncheon, Katharine E.** High school programme of studies: constants and electives. *Pennsylvania school journal*, 63: 477-81, May 1915.

The writer is convinced that boys and girls of high school age accomplish more on a rather carefully prescribed course of study, wisely and judiciously administered. Thinks that to open a system of free election or even comparatively free election to high school students cannot bring good results.

753. **Snedden, David.** High schools—new and old. *School and society*, 1: 621-26, May 1, 1915.

Notes of an address given by Commissioner David Snedden, of Massachusetts, before the Philadelphia high school teachers' association, March 20, 1915.

TEACHERS: TRAINING AND PROFESSIONAL STATUS.

754. **Brown, Elmer Ellsworth.** University departments and schools of education. *Old Penn*, 13: 943-46, April 24, 1915.

Lecture delivered under the auspices of the School of education of the University of Pennsylvania.

755. **Green, Clyde C.** The promotion of teachers on the basis of merit and efficiency. *Journal of education*, 81: 482-83, May 6, 1915.

Address delivered before the Department of Superintendence, National education association, February 1915.

Also in *School and society*, 1: 705-9, May 15, 1915.

756. **Hodgson, Elizabeth.** Equal salaries for men and women teachers. *Education*, 35: 571-77, May 1915.

Says that equal salaries for men and women almost "inevitably means lowering the present level for men, driving into other work many of the best ones now teaching." Cites sociological reasons for employing more male teachers in grammar and secondary schools.

757. **Meierhofer, Hans.** Morbidität und mortalität der lehrer. *Schweizerische blätter für schulggesundheitspflege und kinderschutz*, 13: 49-52, April 1915.

Statistics gathered in Zurich, 1912, 1913, and 1914, which give occasion for interesting comparisons and conclusions. Age and sex of teachers are considered as important factors.

758. **Moore, V. B.** Legal rights of patrons and teachers in public schools. *School and home*, 7: 8-9, May 1915.

Considers the authority of the teacher under three headings: Authority at the school; Authority on the way to and from school, and, Authority at home.

759. **National council of teachers of English.** Preparation of high-school teachers of English. A report of a committee of the National council of teachers of English. *English journal*, 4: 323-32, May 1915.

Questionnaires were sent to high-school teachers of English. This report presents the tabulation and analysis of the returned questionnaires.

760. **Strong, Edward K., jr.** Teacher training. *School and society*, 1: 587-93, April 24, 1915.

Read before Section L of the American association for the advancement of science, Philadelphia, December 30, 1914.

761. **Wisconsin.** State board of public affairs. Conditions and needs of Wisconsin's normal schools. Report of cooperative survey, by A. N. Farmer, director. Issued by the State board of public affairs, December, 1914. Madison, Wis., Democrat printing company, state printer [1914] 653 p. fold. maps, diagrs. 8°.

HIGHER EDUCATION.

762. **American association of collegiate registrars.** Proceedings of the fifth annual meeting . . . Richmond, Va., February 24-25, 1914. Lexington, Ky., The University press. 72 p. 8°. (Miss Mary Scott, secretary, Galesburg, Ill.)

Contains: 1. A. M. Mann: Should the registrar determine the kind and amount of advanced credit that an applicant shall receive on the basis of college work done elsewhere? p. 9-13. 2. A. H. Espenshade: The best way to deal with applicants who have been "dropped" by other colleges (a) for poor scholarship (b) for misconduct, p. 13-23. 3. C. M. McConn: The question of statistics. What statistics should be kept by a registrar's office, and what provision should be made for publishing them, p. 25-35. 4. A. A. Bacon: Should the registrar in a small college be a teaching member of the faculty? p. 39-43. 5. E. H. Davis: To what extent, if at all, should the registrar be a disciplinarian? p. 52-54. 6. A. H. Parrott: Should the registrar do any teaching? What, if any, benefits are to be gained by his doing so? p. 54-57.

763. **American sociological society.** Papers and proceedings, ninth annual meeting, held at Princeton, N. J., December 28-31, 1914. Vol. IX. Freedom of communication. Chicago, Ill., The University of Chicago press [1915] 202 p. 8°.

Contains: 1. U. G. Weatherly: Freedom of teaching in the United States, p. 133-49. 2. H. S. Pritchett: Reasonable restrictions upon the scholar's freedom, p. 150-59. 3. Discussion by F. L. McVey, E. B. Gowin, C. C. North, Scott Nearing, E. A. Ross, E. L. Earp, Maurice Parmelee, p. 159-88. 4. Preliminary report of the joint committee on academic freedom and academic tenure, p. 170-76. 5. Report of the committee on sociology in the training of teachers, p. 176-83.

764. **Bourne, Randolph S.** Democracy and university administration. Educational review, 49: 455-59, May 1915.

Says that the modern university is confronted with the same problems as the modern state—the "struggle between autocratic officers of administration and the democratic personnel of the faculties . . . The faculties must understand that their function is to determine the educational end to be realised. The officers must be left free to realise it with the machinery they find advantageous."

765. **Crawford, William H.** Place and function of the denominational college. Educational review, 49: 445-54, May 1915.

Says there are signs of a renaissance of the denominational colleges. With secularism at full tide, there is a decided need for such institutions.

766. **Deming, Clarence.** Yale yesterdays. New Haven, Yale university press, 1915. xvi, 254 p. illus. 8°.

Edited by members of the author's family, with a foreword by Henry W. Farnam.

767. **Dillard, James Hardy.** Colleges and democracy. School and society, 1: 697-700, May 15, 1915.

The writer thinks that the preponderating influences about our colleges are anti-democratic, and that a change in the direction of rigidity of standard would tend to restore intellectual work to its proper place of precedence, and would go far in doing away with influences that are aristocratic in their tendency.

768. **Graham, Edward Kidder.** Inaugural address at the University of North Carolina. School and society, 1: 613-21, May 1, 1915.

Delivered on April 21, 1915, on the occasion of the author's installation as president of the University of North Carolina.

Discusses the function of a state university.

769. **Hall, G. Stanley.** Medieval and modern universities. Catholic educational review, 9: 404-23, May 1915.

Also in Pedagogical seminary, 22: 275-89, June 1915.

Address delivered at the celebration of the twenty-fifth anniversary of the Catholic university of America.

770. Jordan, David Starr. Stanford's foundation ideals. School and society, 1: 685-97, May 15, 1915.
Founders' day address, delivered by Chancellor Jordan, May 9, 1915.
History of the foundation and growth of Leland Stanford Junior university.
771. Macbride, Thomas H. Duplication in separate schools of higher learning, supported by the state. [Burlington, Vt., Free press printing company, 1915] 20 p. 8°.
An address delivered before the National association of state universities, Washington, D. C., November 10, 1914, by the president of the State university of Iowa.
772. McCormick, S. B. Shall the denominational or independent college ask for state support? Christian student, 16: 43-48, May 1915.
Address before the Association of American colleges, Chicago, January 14-16, 1915.
Gives reasons why an independent or denominational college should not seek or accept state aid.
773. Massachusetts. Board of education. Report of the Board of education relative to the establishment of a state university. Boston, Wright & Potter printing co., state printers, 1915. 43 p. 8°. ([General court 1915] House [Doc.] no. 485.)
774. Reinsch, Paul S. The inner freedom of American intellectual life. North American review, 201: 733-42, May 1915.
The free development of scientific teaching. Cooperation between the state governments and the state universities.
775. Schmidkunz, Hans. Akademische weltpolitik. Akademische rundschau, 3: 255-65, April 1915.
Discussion, by the secretary of the "Gesellschaft für hochschulpädagogik," of a number of reforms and extensions of German university teaching. Foreign experience is utilized.
776. Sharpless, Isaac. The American college. Garden City, New York, Doubleday, Page & company, 1915. ix, 221 p. 12°.
The object of this book is "to give to the general reader a fair idea, hiding neither blemishes nor virtues, of that peculiarly national institution, the American college, as distinct from the university and technological school."
777. Stansell, Charles V. Some other aspects of freshman knowledge. Forum, 53: 621-28, May 1915.
Says that education, in any stage, should be "mental discipline induced and supervised by men of vision." Cf. article by Masseck in Forum, 52: 899-902, December 1914.
778. Taft, William H. Address before the Department of superintendence, National education association, Cincinnati. Southern school journal, 26: 4-9, May 1915.
Advocates enlarging the Bureau of education into a National university.
779. Wisconsin. State board of public affairs. Report upon the survey of the University of Wisconsin. Madison, Wis., State board of public affairs [1915] 957 p. 4°.
Appendices: W. H. Allen's report to the board, E. C. Branson's report to the board, comment by committee of University faculty upon report of investigators.
780. ———. Survey summary re University of Wisconsin, containing the portion thus far released by the State board of public affairs as submitted December 1, 1914, by William H. Allen. Madison, Wis., Wisconsin efficiency bureau, 1915. 107 p. 8°.
CONTENTS.—Scope and method of the survey.—II. What its university means to Wisconsin.—III. Earmarks of efficiency and progress.—IV. Opportunities for increasing efficiency.

SCHOOL ADMINISTRATION.

781. Brown, George A. Boards of education versus school boards. School and home education, 34:322-25, May 1915.

Discusses the subject of the dual system of administering vocational education and the place of a board of education in a democracy.

782. Carroll, Charles. School law of Rhode Island. Providence, E. L. Freeman co., state printers, 1914. 109 p. 8°. (Rhode Island educational circulars)

CONTENTS.—chap. I. The development of Rhode Island school law.—chap. II. The Rhode Island school system.—chap. III. Rhode Island school law.

783. Luqueer, Frederic L. Self-accounting in supervision. Educational review, 49:460-68, May 1915.

Presents a record blank to serve in developing self-directed efficiency.

784. Mathews, John M. A report on educational administration, prepared for the Efficiency and economy committee, created under the authority of the 48th General assembly, state of Illinois. [Chicago] 1914. 83 p. 8°.

785. Maxwell, William H. How to determine the efficiency of a school or a school system? American school board journal, 50:11-12, 73-74, May 1915.

Address before the Department of superintendence, National education association, February 27, 1915.

The writer thinks that owing to the fact "that it is extremely difficult to segregate the influence of the school, the home, the church, and society, and that children vary enormously in ability, it follows that there is no absolute test of teachers' work."

786. The Minneapolis schools business survey. American school board journal, 50:21-22, 63-64, May 1915.

"The first strictly business survey of a city school system to be undertaken, was that completed in February in Minneapolis. This survey was conducted by Mr. F. S. Staley, Director of the Bureau of municipal research of the Minneapolis civics and commerce association . . ."

This article gives a summary of the findings and recommendations of the survey.

787. Moore, Ernest C. The administration of the public schools of New York city. Educational review, 49:469-88, May 1915.

An able critique of public-school administration in New York city, based upon recent investigations, the Moore report, and the Goodnow-Howe report.

788. Pearse, C. G. Gary, the city which has seen a great light. American school, 1:104-7, April 1915.

An account of the schools of Gary, Indiana.

789. Smith, H. P. The accounting system of a small city district. American school board journal, 50:15-16, 73, May 1915.

790. Taylor, Joseph S. Report on Gary (Indiana) schools. Educational review, 49:510-26, May 1915.

Says that the Gary plan deserves special consideration in a borough like the Bronx (New York city) where school congestion is a serious matter. Declares emphatically that the Gary plan, due allowance being made for imperfections, is "the most remarkable educational experiment the world has seen since Pestalozzi."

SCHOOL MANAGEMENT.

791. Chancellor, William E. Written examinations: the scientific view. Journal of education, 81:451-56, April 29, 1915.

792. Elliott, Charles Herbert. Variation in the achievements of pupils; a study of the achievements of pupils in the fifth and seventh grades, and in classes of different sizes. New York city, Teachers college, Columbia university, 1914. 114 p., 1 l. diagrs. 8°.

Thesis (Ph. D.)—Columbia university, 1914.

Published also as Contributions to education, Teachers college, Columbia university, no. 72.

Bibliography: p. 109-114.

793. **Hern, Ernest.** Distribution of opportunity for participation among the various pupils in class-room recitations. New York city, Teachers college, Columbia university, 1914. v, 40 p., 1 l. 8".
Thesis (Ph. D.)—Columbia university, 1914.
Published also as Contributions to education, Teachers college, Columbia university, no. 67.
794. **Kelley, Truman Lee.** Educational guidance; an experimental study in the analysis and prediction of ability of high school pupils. New York city, Teachers college, Columbia university, 1914. vi, 116 p., 1 l. diagrs. 8".
Thesis (Ph. D.)—Columbia university, 1914.
Published also as Contributions to education, Teachers college, Columbia university, no. 71.
795. **Hall-Quest, Alfred L.** Present tendencies in supervised study. Educational administration and supervision, 1: 239-56, April 1915.
796. **Pittenger, Benjamin F.** Scientific studies of the marking system. American schoolmaster, 8: 145-57, April 1915.
Bibliography: p. 156-57.
797. **Snow, Lillian M.** Outline of a plan for use in the making of schedules in educational institutions. Educational review, 49: 527-31, May 1915.

SCHOOL ARCHITECTURE.

798. **Balthis, Frank K.** Beautify the school ground. American school board journal, 50: 13-14, 72-73, May; 19-20, 79, June 1915.
"The author of this article is a landscape gardener of many years experience. As gardener for the Northern Illinois state normal school he has given especial attention to the beautification of school grounds."—Editor.
799. **Mills, Wilbur Thoburn.** American school building standards. [2d ed.] Columbus, O., Franklin educational publishing company, 1915. 616 p. incl. front., illus., plans. 8".
800. **Schoenfelder, L.** Die hallenschulen in England wieder abgeschafft. Schulhaus, 17: 97-108, heft 3, 1915.
Reports that the school building with a central corridor—widely used in America—has gone out of use in England and is condemned by school hygienists.
801. ——— Die schulen Düsseldorf's. Schulhaus, 17: 49-76, heft 2, 1915.
Illustrated with photographs and plans.

SCHOOL HYGIENE AND SANITATION.

802. **Bell, J. Clark.** The hygiene of reading. Child (London) 5: 464-70, May 1915.
Presents a survey of schoolbooks. Discusses the psychology of reading.
803. **Bliss, D. C.** Open window classes. Psychological clinic, 9: 29-38, April 15, 1915.
Results of a study conducted in the schools of Montclair, N. J., to find out the effect of open air classes on the physical and mental condition of the children. "An examination of the charts shows a somewhat inconclusive result, though taken as a whole the classes held under ordinary conditions make more consistent gains and have fewer losses than the open window groups."
804. **Haight, Harry W.** The case system of teaching hygiene and preventive medicine in the upper grades. Educational review, 49: 503-9, May 1915.
In using the "case system," the teacher at the beginning of the lesson distributes to the pupils "records of specific cases of diseases and disorders which occur commonly in every-day life." The diagnosis, prognosis, and treatment must be thought out by the pupils.
805. **Hallman, J. D.** The ill health and defects of our school children. Colorado school journal, 30: 3-7, April 1915.
A paper read before the Colorado schoolmasters' club, March 12, 1915.

806. Hinsdale, Guy. Open-air recreation and instruction. *Child* (London) 5: 372-76, April 1915.
Sketch of open-air theatre, schools and hospitals in the United States.
807. Meyrich, Oswald. Blutuntersuchungen an schulkindern. *Neue bahnen*, 26: 186-94, January-February 1915.
Haemoglobin tests of 2,000 Leipzig children.
808. Minton, R. C. Open-air day schools. *Child* (London) 5: 433-60, May 1915.
An elaborate study of an experiment at the open-air day school, Lincoln, England. Methods and results; curriculum; cooperation of parents; medical and educational problems. Well illustrated.
809. Tant, Ethel. An experiment in open-air class work for normal-school children. *Child* (London) 5: 461-63, May 1915.
Brief but interesting notes of an educational experiment bearing on the health of children, at the Fielden demonstration school, Manchester, England.

PLAY AND PLAYGROUNDS.

810. Lee, Joseph. Play in education. New York, The Macmillan company, 1915. xxiii, 500 p. 12°.
811. Talbert, E. L. The play attitude and the school fraternity. *Popular science monthly*, 86: 472-77, May 1915.
Discusses the psychology of play and the evolution of the school fraternity. Shows the benefits and dangers of a high school fraternity.

SOCIAL ASPECTS OF EDUCATION.

812. Armstrong, Donald B. Educational work in sanitary food values in New York city. *American journal of public health*, 5: 347-53, April 1915.
illus.
Describes a sanitary exhibit of foods made by the Bureau of food supply of the New York association for improving the condition of the poor.
813. Behm, Albert. Die bayerischen elternvereinigungen. *Stemann*, heft 12: 433-37, February 1915.
Discusses effect of parents' organizations upon the schools.
814. Wald, Lillian D. The house on Henry street. *Atlantic monthly*, 115: 649-62, May 1915.
Settlement work in New York city. Discusses education and the child. Says that the children of the poor should be protected from premature burdens; childhood should be prolonged and the period of growth.
Part 3 of a series of papers. To be continued.

CHILD WELFARE.

815. National league of compulsory education. Fourth annual convention, Detroit, Mich., November 20-21, 1914. *Mogy's magazine*, 19: 1-21, April 1915. (John B. Quinn, secretary, St. Louis, Mo.)
Contains: 1. W. L. Bodine: President's address, p. 1-3. 2. J. B. Quinn: Following up children who work, and the problem of vocational guidance, p. 3-4. 3. Ella F. Young: The opportunities of modern education, p. 4-5. 4. W. S. Deffenbaugh: Value of cooperating with the U. S. Bureau of education in collecting statistics, p. 6-7. 5. C. E. Chadsey: The minimum educational and age qualifications for employment permits, p. 7-8. 6. Ella M. Cullen: The humane activities of Chicago public schools, p. 8-10. 7. Paul Kreuzpointner: Unconsidered factors in industrial education, p. 10-11. 8. H. H. Todd: Parental schools, p. 12-14. 9. A. J. Willy: The children of the mother who works, p. 14.
816. Comstock, Sarah. Mothercraft: The growing mind of the growing child. Good housekeeping, 60: 514-21, May 1915.
Stimulating the imagination of the child. Care of children, and intellectual training in the home.

817. Haniphy, Joseph A. Juvenile courts. *Educational review*, 49: 489-502, May 1915.
 Historical and critical sketch of juvenile courts in the United States. Recommends a clinic for each court to correct patent physical defects in the child which are "in a large degree responsible for his violation of the law."
818. Keller, Maria. *Das sozialpädagogische seminar des jugendheims. Frauenbildung*, 14: 101-9, [March] 1915.
 Describes course of study and purpose of a school for the training of directors and assistants for crèches. The school is maintained by the "Verein Jugendheim," of Charlottenburg, and has received official recognition.
819. Woolley, Helen T. Child labor and the school. *American school*, 1: 103, April 1915.
 "The working certificate officer of a great city gives the reasons why children's working permits ought to be issued by the school authorities."

MORAL EDUCATION.

820. Mead, Cyrus D. Can morality be taught. *Educator-journal*, 15: 447-51, May 1915.
 An address delivered at the graduation exercises of the Teachers' Institute of the Hebrew union college, Cincinnati, June 13, 1914.
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RELIGIOUS EDUCATION.

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823. Campbell, T. H. The reading of the Bible in the public schools. *Rural educator*, 5: 103-4, May 1915.
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824. Cope, Henry Frederick. Religious education in the family. Chicago, Ill., The University of Chicago press [1915] 298 p. 12°. (The University of Chicago publications in religious education. Constructive studies.)
 Contains bibliographies.
825. King, Henry C. The Christian ideal in education: methods of its attainment. *Educational review*, 49: 433-44, May 1915.
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826. Lewis, Thomas Dean. Religious education: the need and the remedy. *Virginia journal of education*, 8: 466-72, May 1915.
827. McKee, Joseph V. A serious problem. *Catholic world*, 101: 208-14, May 1915.
 Reviews work of parochial schools. Deprecates lack of interest in secondary education on the part of Catholic boys. Suggests remedies.

828. **Michigan Christian teachers' institute.** Six lectures delivered at the Michigan Christian teachers' institute, held at Grand Rapids, Mich., October 1 and 2, 1914. Kalamazoo, Mich., Dalm printing co. [1914] 108 p. 8°.

An institute held under auspices of the Advisory board of Christian schools of the Reformed churches in Michigan.

829. **Stoutemyer, J. Howard.** Religion and race education. *Journal of religious psychology*, 7: 273-324, April 1915.

A very interesting study of the philosophy underlying missionary efforts. Evolution of religious ideas.

830. **Wells, Amos B.** The successful Sunday-school superintendent. Philadelphia, The Westminster press, 1915. 179 p. 12°.

MANUAL AND VOCATIONAL TRAINING.

831. **Eastern art and manual training teachers' association.** Proceedings, fourth annual meeting, New York, March 20-22, 1913, and fifth annual meeting, Atlantic City, April 9-11, 1914. Combined report. 1915. 312 p. 8°. (F. P. Reagle, secretary, Board of education, Montclair, N. J.)

Contains: 1. Morris Greenberg: The influence of the modern industrial demands upon the present drawing and art courses, p. 20-30. 2. Lilla M. Olcott: What shall be the grade teacher's normal training in the manual arts? p. 31-35. 3. F. G. Bonser: What constitutes manual training? p. 46-48. 4. W. T. Bawden: The aims of manual training, p. 49-50. 5. E. W. Boshart: The training of the manual training teacher, p. 54-59. 6. C. A. Prosser: Team-play between the schoolmaster and the layman, p. 86-92. 7. Mrs. Andreas Neland: State aid for industrial art education, p. 107-8. 8. A. L. Williston: Adaptation of manual training courses to fit the community needs, p. 133-40. 9. C. N. Kendall: The fine, industrial and household arts in public education, p. 159-67. 10. C. A. Prosser: The place of art in industry, p. 168-79. 11. E. C. Emerson: Prevocational schools—a scheme of education for the motor minded, p. 180-87. 12. F. H. Ball: Unit courses in Pittsburgh elementary industrial schools, p. 189-203. 13. Mary F. Marshall: Opportunities for vocational training in household arts courses, p. 204-9. 14. Morris Greenberg: What the average teacher may accomplish in blackboard drawing, p. 210-14. 15. Jean Kimber: Standards of measurement in drawing, p. 215-19. 16. J. P. Haney: The art of teaching art, p. 220-31. 17. F. G. Bonser: Vocational guidance as an opportunity for teachers of the practical arts, p. 232-39. 18. F. E. Mathewson: Vocational courses in the high school, p. 256-64.

832. **Dean, Arthur D.** A better man and better job. *Industrial-arts magazine*, 3: 193-96, May 1915.

The writer says that "In view of our present industrial problem we can ill afford in our educational practice, to separate intellectual attainments and manual skill." He asks, "Is there no way of bringing the two together? Must we always separate brains and work—culture and vocation—head and hand—in pedagogical discussions?"

833. **Henderson, Wilson H.** Manual training as vocational education. An investigation. *Industrial-arts magazine*, 3: 243-46, May 1915.

834. **Indiana university.** School of education. Some facts concerning the people, industries, and schools of Hammond, and a suggested program for elementary industrial, prevocational, and vocational education. Robert J. Leonard, professor and director vocational education, Indiana university. Hammond, Ind., 1915. 165 p. 8°.

835. **Lapp, John A.** National aid for vocational education. *School and society*, 1: 649-57, May 8, 1915.

836. **Leonard, Robert Josselyn.** A study of the people of Indiana and their occupations for purposes of vocational education. [Bloomington, Ind., 1915] 143 p. 8°. (Indiana university bulletin. vol. XII, no. 17. Indiana university studies, 26)

837. Lull, Herbert G. Vocational instruction in the high school. Manual training and vocational education, 16: 529-36, May 1915.
 "Much of the material of this article is drawn from a recent vocational survey of Bellingham, Wash., made by the writer in connection with his work on the State vocational commission."
 Discusses the practicability of establishing vocational departments in the existing high schools.
838. Monahan, A. C. Federal aid for vocational training: the Smith-Lever and the Smith-Hughes bills. Journal of home economics, 7: 245-48, May 1915.
839. Owen, William Bishop. Vocational education in Illinois. The contest. American school, 1: 99-102, April 1915.
 "An account of the struggle which Illinois is making to keep her public schools from being divided into two competing groups of schools in each community, each group bidding against the other for favor and funds."
840. Prosser, C. A. Vocational education for New York city. Educational administration and supervision, 1: 231-38, April 1915.
 Extracts from an address before the industrial conference for New York city, June 29, 1914.
841. Reading, Pa. Board of school directors. Dept. of practical arts. A survey of manual, domestic, and vocational training in the United States. [Reading, Pa., 1915] 156 p. 8°. Results of an inquiry sent to typical American cities.
 Wallace E. Hackett, director of practical arts.
842. Smith, Walter B. Some practical aspects of vocational education. Teaching, 1: 6-16, April 1915.
 Discusses the subject under the following headings: Changes necessary in the grades, Changes necessary in the high school, Necessary changes in equipment and method, The three needs.
843. Snedden, David. Vocational education. New republic, 3: 40-42, May 15, 1915.
 Comments on recent contributions to the New republic by John Dewey, such as item 643 in the May record. Dr. Dewey's reply, entitled Education vs. trade-training, follows Dr. Snedden's communication, p. 42-43.

VOCATIONAL GUIDANCE.

844. National vocational guidance association. Proceedings . . . being the fourth national convention on vocational guidance, held at Richmond, Va., December 7-9, 1914. Published by the Association, 1915. 63 p. 8°. (W. Carson Ryan, jr., secretary, Bureau of education, Washington, D. C.)
 Contains: 1. J. D. Elliff: Vocational guidance—a function of the university, p. 12-16. 2. F. V. Thompson: Vocational guidance in Boston, p. 17-24. 3. W. A. Wheatley: Some suggestions for presenting a course in vocational information to pupils in our smaller schools, p. 24-29. 4. I. S. Wile: Vocational guidance and the curriculum, p. 29-35. 5. D. S. Hill: The problems of vocational guidance in the South, p. 36-44. 6. P. P. Claxton: Part-time secondary schooling and vocational guidance, p. 44-48. 7. Julia C. Lathrop: Some items to be considered in a vocational guidance program, p. 49-50. 8. Anne S. Davis: A brief statement of the work of the vocational bureau and the joint committee for vocational supervision, p. 51-56. 9. Margaret Brown: The work of the scholarship committee, p. 59-61.
845. Banft, Hermann. Berufsberatung. Neue bahnen, 66: 286-93, April 1915.
 An informing account of vocational guidance as practiced in Munich, Plauen, Chemnitz, Freiberg, Leipzig, and through the state of Saxony. Bibliography in the text.
846. Smith, W. B. Vocational guidance. Teaching, 1: 19-30, April 1915.
 The following phases of the subject are discussed: Occupational maladjustment, Unconscious vocational guidance, Occupations of college graduates, The advantages of vocational guidance, Moral value of vocational guidance, Beginning of vocational guidance, and Methods of vocational guidance.

AGRICULTURAL EDUCATION.

847. **Association of American agricultural colleges and experiment stations.** Proceedings of the twenty-eighth annual convention . . . held at Washington, D. C., November 11-13, 1914. Montpelier, Vt., The Capital City press, 1915. 272 p. 8°. (J. L. Hills, secretary, Burlington, Vt.)

Contains: 1. A. C. True: Report of Committee on instruction in agriculture, p. 27-63. 2. H. P. Armsby: Report of the Committee on graduate study, p. 64-70. 3. A. C. True: Presidential address, p. 86-96. 4. K. L. Butterfield: Report of Committee on college organization and policy, p. 106-9. 5. A. C. True: The administration of the Smith-Lever extension act, p. 113-18. 6. A. M. Soule: The administration of the Smith-Lever act, p. 119-26. 7. Miss E. B. Kelley: Extension work in home economics, p. 133-38. 8. A consideration of the Hughes educational bill [by] Brown Ayres, p. 156-58; [by] P. P. Claxton, p. 159-61. 9. E. T. Fairchild: The relation of the agricultural college to school instruction in agriculture and home economics, p. 164-69; Discussion, p. 169-76. 10. D. H. Hill: Changes in college attitudes, p. 176-80. 11. C. A. Lory: Instruction costs in agricultural colleges, p. 182-213. 12. C. R. Titlow: Correlating the extension work of the colleges with other agencies in the state, p. 253-57.

848. **Maphis, Charles G.** The proper preparation and equipment, academic and professional, of teachers in schools of agriculture. [Washington, U. S. Department of agriculture, 1915] 13 p. 8°.

An address delivered at the Conference on secondary agricultural education, Columbus, Ohio, February 22, 1915.

849. **True, A. C.** Agricultural education and agricultural prosperity. *Annals of the American academy of political and social science*, 59: 51-64, May 1915.

Discusses the development of technical and vocational education in the United States; extension work in agriculture by state and Federal governments; Federal aid, etc.

COMMERCIAL EDUCATION.

850. **National commercial teachers' federation.** Proceedings of the National commercial teachers' federation and its constituent associations . . . at the eighteenth annual convention, held at Chicago, Ill., December 28-31, 1914. *Federation herald*, 1: 1-48, March 1915. (E. E. Jones, secretary, La Salle extension university, Chicago, Ill.)

Contains: 1. S. P. Capen: The increasing importance of commercial education in the United States, p. 7-10. 2. W. B. Elliott: The private commercial school an economic necessity, p. 13-14. 3. J. C. Reed: The commercial teacher, p. 16-18. 4. Samuel MacClintock: Higher commercial education, p. 37-39.

PROFESSIONAL EDUCATION.

851. **Association of American medical colleges.** Proceedings of the twenty-fifth annual meeting, held at Chicago, February 17, 1915. 116 p. 8°. (F. C. Zapffe, secretary, Chicago, Ill.)

Contains: 1. Isadore Dyer: The medical career, p. 5-10. 2. H. S. Pritchett: The classification of medical schools, p. 11-21; Discussion, p. 21-29. 3. F. C. Waite: Minimum expense of maintenance of first two years of an acceptable medical school, p. 43-47. 4. J. L. Heffron: The minimum expense of maintenance of the clinical department of an acceptable medical college, p. 48-52. 5. John Sundwall: The present relations between the college and the medical school, p. 53-70. 6. Report of Committee on medical education and pedagogics, p. 82-103.

852. **Bücher, Karl.** Akademische berufsbildung für zeitungskunde. *Preussische jahrbücher*, 159: 531-34, March 1915.

Proposals and report on academic training for journalism in Germany (an endowment at the University of Leipzig.) Also in *Akademische rundschau*, 3: 173-82, March 1915.

853. Carson, Hampton L. An existing defect in the American system of legal education. *American law school review*, 3: 609-17, May-June 1915.

Gives an interesting historical review of the methods of teaching law in England and America. Says that the chairs of practice in the law schools should be vacated by the pure scholars. Let such professional chairs in schools be filled by active members of the bar, whose presence in the court room is a familiar presence, and let them teach ethics as they discuss remedies.

854. Malcolm, George A. The college of law, University of the Philippines. *American law school review*, 3: 628-33, May-June 1915.

Interesting descriptive article.

MILITARY TRAINING.

855. Eberhard, ——. Der wehrkraftgedanke in der deutschen jugenderziehung. *Pädagogische warte*, 22: 2-10, January 1915.

A survey of the preparation of German youth for national defense—with the emphasis more upon physical fitness than upon military drill, discipline, and spirit—through such organisations as "Vortrupp," the Bavarian "Wehrkraftverein" (W. K. V.), the "Jungdeutschlandbund," and the "Pfadfinderbund."

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A survey of the preparation of youth for physical and military fitness in various countries, particularly in Germany.

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857. Hedler, A. Bürgerkunde in der frauenschule. *Lyzeum*, 2: 281-92, March 1915.

A survey of instruction in civics in the schools of Germany, Austria, and Switzerland, made during the year 1913-14.

858. Miller, Sarah Pleis. Have women's salaries been increased by higher university training? *Journal of the Association of collegiate alumnae*, 8: 73-79, April 1915.

From information received from the civil-service bureau, teachers' agencies, city superintendents of schools, and university authorities, the author shows that college degrees do increase women's salaries.

859. Reynolds, Myra. The education of women in England in the eighteenth century. *University record*, 1: 59-73, April 1915.

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862. Andrews, Harriet U. A deaf boy who is being rightly trained. *Volta review*, 17: 165-71, May 1915.

A remarkable example of home training in lip-reading.

863. Nöll, Heinrich. Formale und materielle intelligenzdefekte als hemmungen im ersten leseunterricht der schwachbegabten und eine diesen defekten angepasste leselehre. *Zeitschrift für kinderforschung*, 20: 153-71, January 1915.

To be continued.

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865. Statistics of speech-teaching in American schools for the deaf. *Volta review*, 17: 190-202, May 1915.
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EDUCATION EXTENSION.

866. Dooley, W. H. Purpose of an evening high school. *Education*, 35: 543-54, May 1915.
 Suggests evening courses of study. Discusses vocational education and guidance.
867. Lépine, F. Les colonies de vacances par la mutualité. *Revue pédagogique*, 66: 170-78, March 1915.
 A study of the cooperation of vacation colonies with school mutual aid societies.
868. Miles, H. E. The Wisconsin continuation schools. *Elementary school journal*, 15: 476-80, May 1915.
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LIBRARIES AND READING.

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 Proposes a two-hour course in Library browsing, which should represent six hours a week spent in reading, and for which credit should be given.
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 Describes the rare collections of books contained in the library. Destruction of the library.



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CIVIC EDUCATION IN ELEMENTARY SCHOOLS AS ILLUSTRATED IN INDIANAPOLIS

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CONTENTS.

	Page.
The law society.....	5
The law school of the law society.....	5
Correspondence courses.....	7
Organization of legal education.....	7
The barristers.....	7
Other law schools.....	9
Preliminary education.....	10
The inns of court.....	11
Entrance examinations at Oxford and Cambridge.....	11
Scottish universities.....	12
Conclusions as to the preliminary education.....	12
Intermediate examinations.....	12
Council of legal education.....	13
Intermediate examination at the Universities.....	13
Final examinations.....	14
Degrees.....	15
Honors.....	15
Calls to the bar.....	16
Methods of instruction.....	17
In general.....	18

LEGAL EDUCATION IN GREAT BRITAIN.

Admission to the legal profession in England is controlled by organizations representing the solicitors and barristers, the two great divisions into which the profession is divided. This control by private organizations is peculiar to England, and a proper appreciation of the present condition and tendencies in English legal education therefore requires a somewhat detailed account of these societies and their activities.

The division of the profession into two classes, the solicitors and barristers, does not exist in the United States. The activities of the solicitor correspond, roughly, to those of the so-called office lawyer in America, while the barrister corresponds to the trial lawyer. The solicitor may appear as an advocate in the inferior courts and in noncontroversial matters in chambers before judges of the High Court. By the conveyancing act passed in 1881 the solicitor is permitted to do all kinds of conveyancing, a field formerly belonging exclusively to the barrister. The barrister's chief function is to conduct trials before the High Court; he is employed by the solicitor and does not come in contact with the client in the first instance.

THE LAW SOCIETY.

The incorporated Law Society was established in 1827 and incorporated in 1831, succeeding an earlier society dating back to 1739. In 1833 courses of lectures were established for law clerks, and the present system of instruction dates from 1903. The society's control over admission to the roll of solicitors is derived from parliamentary sanction.¹ The society now has a membership of over 9,000 scattered throughout the United Kingdom and the Crown colonies.

THE LAW SCHOOL OF THE LAW SOCIETY.

The law society is not only an examining body, but since 1903 has maintained a system of instruction in London and at various provincial centers and also a correspondence course. The principal law school is maintained in the society's building in London. It is presided over by a principal and director of legal studies corresponding to the dean in American schools; there are, in addition, a

¹ Secs. 6 and 7, Vict., ch. 73; 7 and 8, Vict., ch. 86; 23 and 24, Vict., ch. 127; 33 and 34, Vict., ch. 28; 36 and 37, Vict., 81; 37 and 38, Vict., ch. 66; 38 and 39, Vict., ch. 77; 40 and 41, Vict., ch. 25.

reader, ranked as assistant professor; six tutors ranking as instructors; one lecturer on commercial law; a tutor in criminal law; and a tutor in accounting and bookkeeping. The supervision of the school is in the hands of the legal education committee of the society, which is composed of 10 members of the council of the society, 5 members representing provincial law societies, and 2 members of the London law students' society. The teaching year is divided into four terms of about eight weeks each. Classes are held at such hours as will best accommodate the clerks who are in solicitors' offices. The courses covered embrace the topics covered in the intermediate and final examinations.

Attendance is not required. In 1913 the attendance was 209. This number seems small when compared with the total taking the examinations, but it was greater than in preceding years.

Examinations are held at the end of each course, but attendance is voluntary and does not exempt from the finals or intermediate examinations.

The fees in the law school are relatively low—£10 for complete course and revision class; correspondence, £7; extra order, £15.

The report of the society shows a falling off in the number of articles registered since 1902. In 1902, 785 articles were registered as against 534 in 1912, a decrease of 251. Solicitors admitted in 1902 numbered 557; in 1912, 494, a decrease of 63.

In addition to the law school maintained in London instruction is given in various provincial centers, the society making grants to local societies for this purpose. In many instances these local schools are maintained by local universities, under the supervision of boards of legal studies made up of representatives of the university local law societies and the law society. The latter has been largely instrumental in the formation and administration of these schools.

In 1914 the society granted £2,275, or \$11,375, to provincial law societies. The law society is represented on the boards of the following centers of legal education:

Aberystwyth. University College of Wales, degrees.

Birmingham. Board of legal studies, prizes.

Brighton. Classes, Sussex Law Society.

Bristol. Board of legal studies (Bristol and district), prizes.

Cardiff. University College of South Wales and Monmouthshire, joint board of legal studies and local societies.

Hull. University of Leeds, Yorkshire, board of legal studies.

Leeds. University of Leeds, Yorkshire, board of legal studies (railway fare paid for students in district), degrees.

Liverpool. University of Liverpool and board of legal studies (prizes and scholarships), degrees.

London. School of the law society (also qualifies for University of London); LL. B. examinations, degrees, prizes, and scholarships.

Manchester. University of Manchester and Manchester Law Society, degrees.

Newcastle-up-on Tyne. Newcastle board of legal studies.

Nottingham. University College and Nottingham and Midland board of legal studies.

Sheffield. University of Sheffield and Yorkshire, board of legal studies, degrees.

Shrewsbury. Shropshire Law Society, University of Wales.

Swansea. University College, University of Wales, Aberystwyth, Neith board of legal studies, degrees.

Of these 15 centers, 10 are connected with local universities and 7 are degree courses.

The scope of the course of study will be dealt with in connection with the local schools.

CORRESPONDENCE COURSES.

Correspondence courses are also offered by the society for the benefit of articled clerks who are not convenient to a local center. A correspondence tutor is employed. In 1913 65 students were thus instructed, the fees being £8 10s. for the finals. The correspondence study is not advocated except for those students who reside a distance from a local center. With the growth of center school, the importance of the correspondence study will decrease.

ORGANIZATION OF LEGAL EDUCATION.¹

As preliminary to admission to the rank of solicitor, the candidate must be articled or apprenticed to a solicitor in active practice, the period of the apprenticeship ranging from three to five years, according to the amount of previous education. Holders of the A. B. degree from Oxford, Cambridge, Dublin, Durham, London, and Queen's College, Ireland; the LL. B., LL. D., A. B., or A. M. from the Scottish universities, and "utter" barristers, serve three years. Barristers of five years' standing are not required to enter into articles, but need only pass the final examination. By action of the Master of the Rolls and the Lord Chief Justice and the Lord Chancellor, students who have had one year of study in an approved law school before entering into articles are required to serve but four years. All others must serve five years.

THE BARRISTERS.

The barristers are members of the inns of court of the various law inns. Only the four principal ones survive. They are Lincoln's Inn, Gray's Inn, the Middle Temple, and the Inner Temple. Each inn has the right to call its members to the bar, but for the sake of uniformity in requirements and for the purposes of instruction, the

¹ The laws relating to solicitors and legal education of the same now in force are to be found in 6 and 7 Vict., ch. 73, 1843; 7 and 8 Vict., ch. 86, 1844; 23 and 24 Vict., ch. 127; 33 and 34 Vict., ch. 28; 36 and 37 Vict., ch. 81, 1873; 36 and 37 Vict., ch. 66, 1873; 37 and 38 Vict., ch. 66, 1874; 38 and 39 Vict., ch. 77, 1875; 40 and 41 Vict., ch. 25, 1877.

"Council of legal education," composed of representatives of the several inns, has been established. Unlike the law society, the right of the inns to call to the bar is not based upon legislative sanction but upon immemorial usage. The origin of the inns themselves is shrouded in obscurity, although their existence in form is traceable as far back as the thirteenth century, when, with the establishment of the court of common pleas at Westminster, by a clause of Magna Charta, there resulted the congregation in London of lawyers and their apprentices who resided together in hostels or inns. To the four principal inns which still survive were attached subsidiary inns, 10 or more in number, called the inns of chancery. It was customary for apprentices or students to begin their readings in one of the inns of chancery, transferring after two years to one of the four inns. The usual period of apprenticeship during the early period was seven years. The apprentice resided in the inn, attended lectures or readings, copied pleadings and participated in the moots and botes presided over by the benchers or governors of the inn. It was in the inns that the English law was first scholastically taught, and to this fact Prof. Maitland attributes the escape of the English law from the fate that overwhelmed the native law of Germany and Scotland at the hands of the all-conquering Roman law.

Outside of the inns no opportunity for the study of the common law was found until a comparatively late period. The first lectures of any scope at the universities were given in 1758, when William Blackstone began his career at Oxford. All writers agree as to the vitality and activity of the inns in teaching in the thirteenth, fourteenth, and fifteenth centuries. The corporate life of the inns constantly declined from the sixteenth century, until by 1845 the benchers had ceased to concern themselves with teaching, and the requirements for the bar became purely formal. In 1852, as a result of agitation, the council of legal education was formed, being made up of 20 benchers, 5 from each inn. The council has drawn up the "Consolidated Regulations" governing admission of students to the inns and calls to the bar.

The council has created a board of legal studies consisting of members of the council and the teaching staff, the latter consisting of seven readers and four assistant readers. This board directs the education and examination of students, and the law school of the inns is conducted under the supervision of this board, the administrative work being performed by the director of legal studies, who is also a reader or professor. Classes are held in the halls of the inns, each inn taking turns in providing lecture rooms. The work of the year is done in four educational terms of from three to four weeks each. Residence in the inns is not required, but the student is com-

pelled to "keep terms"—that is, by dining in the inn of which he is a member. Members who are also members of the principal English, Scottish, Irish, and Welsh universities keep terms by dining in their inn any three days in each term. Twelve terms must be kept before the student is eligible to a call to the bar. In some instances the keeping of term may be modified, but not to exceed two terms. Students not members of a university as above must dine six days in each term. Solicitors of not less than five years' standing need not keep terms, but must pass the final examinations. Each student pays £5, which entitles him to attend classes while he is a student. The fees are much less than in the school of the law society.

The expenses of the school are met from a common fund maintained by the inns. All fees are paid into this fund, and each inn contributes a minimum sum of \$1,800. Deficits are met by the inns in proportion to the number of students.

Attendance on the lectures is not required, although an effort is made to induce attendance by making the examinations cover the work of the lecture room. Although 1,639 were registered in the inns in 1913, the average class attendance in the most popular classes, those in English law, was only 100. The custom of not attending lectures prevails in nonprofessional schools both in England and on the Continent, preparation for the examinations being made by private study or under tutors. This practice is in striking contrast to the practice in American colleges and universities generally, where attendance on the lectures is required as prerequisite to the examination.

OTHER LAW SCHOOLS.

Faculties in law exist in the Universities of Cambridge, Oxford, London, Leeds, Sheffield, Manchester, Liverpool. In the Universities of Birmingham and Bristol; University College of South Wales, Cardiff; and University College, Nottingham, courses in law are offered, but no faculties of law have been organized. Courses in law are also provided at various provincial centers, under the patronage of the law society.

In Scotland, faculties of law exist in the Universities of Edinburgh, Glasgow, and Aberdeen. Some instruction in law is given at Dundee and St. Andrews, but there is no law faculty.

There are two types of university organization, represented on the one hand by Oxford, Cambridge, and London, and on the other by the Scotch universities and the modern city universities, of which Manchester is a type.

The organization of Cambridge is typical of the first class. The university is composed of a number of distinct colleges, each with its

own teaching staff, buildings, officers, and property, all united together in a larger body corporate having its own distinct organization and officers, with teaching staff and property. This latter body, known as the University of Cambridge, is alone entitled to confer degrees. The university employs a staff of law teachers, and nearly every college maintains one or more law teachers. In many instances the same man holds a position on the university staff as well as on that of the college. Twenty men are employed by the colleges and university in the work of legal instruction. Each college looks after the administrative details of the students on its rolls. The work of the various colleges and the university in law is correlated through a special board made up of representatives of the university and the colleges. A chairman selected for each year corresponds to the dean of an American school.

The organization at Oxford is similar to Cambridge, the work being coordinated by an administrative board composed of the university staff and certain elected members. The faculty of law contains 4 professorships, 4 readerships, 1 lectureship, and 10 or more tutors. In the newer universities, with the exception of the University of London, which in many respects is more like Oxford and Cambridge, the organization is similar to that in American universities, with faculties of law, medicine, etc., each faculty being presided over by a dean. This form of organization obtains also in the Scottish universities.

PRELIMINARY EDUCATION.

The Law Society.—A preliminary examination is required of all students before entering into articles. To this rule there are numerous exemptions, as follows: Holders of A. B. or LL. B. degrees of the principal English universities of England and Ireland; or of A. B., LL. B., LL. D., of Scotland; and students who have passed the public or intermediate or matriculation examinations in the principal universities need serve but four years under articles. The preliminary examination of the society is given four times a year in about 20 cities and towns and covers the following topics: (a) Writing from dictation; (b) writing short English composition; (c) arithmetic, algebra to simple equations, elementary geometry, Euclid, Bks. I to IV; (d) geography of Europe; (e) history of England; (f) Latin; (g) any two of the following languages—Latin, Greek, French, German, Spanish, Italian. (May take geometry or algebra and two languages, or both and one language.) This examination represents in content about the equivalent of the first two years in the better American high schools.

THE INNS OF COURT.

An applicant for admission to the inns must not be a solicitor or attorney, a parliamentary agent, a notary public, receiver under bankruptcy, clerk to accountant, engineer, or surveyor, and must not be engaged in trade or be an undischarged bankrupt. A certificate of moral character is also required.

All applicants, with certain exceptions, must pass a preliminary examination. Students are exempt from this examination who have passed a public examination at any British university.

The topics for examination are English, Latin, and legal history. This examination is less extensive in scope than that prescribed by the law society. The law society requires mathematics and makes Latin optional, while the council of legal education omits the former and requires the latter. The examination itself is quite elementary, more so than that of the law society, representing somewhat less than the equivalent of the first year in the classical course of a good American high school. Most of the applicants come from the universities or the great public schools like Rugby; so in practice the scope of this examination is of no particular importance.

ENTRANCE EXAMINATIONS AT OXFORD AND CAMBRIDGE.

General entrance examinations are not held by the universities either at Oxford or Cambridge, admission being in the control of the several colleges, but at both institutions general examinations are given to candidates for a degree, whether for the arts degree or degrees in law. At Oxford this first university examination is known as "responsions," the corresponding examination at Cambridge being the so-called "previous examination." In both of these examinations stress is laid on the Greek and Latin classics. In addition to these topics in the previous examination at Cambridge, papers are set in Paley's evidences, elementary logic, chemistry, geometry, arithmetic, elementary algebra, and an English essay is required. If the student is a candidate for the law tripos, he must pass in one of the three following additional subjects: Mechanics, French, German. In the responsions examination an additional subject selected by the candidate from the following list may be offered: (1) Greek or Latin historical or philosophical authors; (2) French, German, or Italian historical or philosophical authors; (3) Bacon's *Novum Organum*; (4) *Elements of Logic*. The Universities of London, Manchester, Leeds, Sheffield, and Liverpool hold a matriculation examination. That at London embraces English, elementary mathematics, Latin or elementary mechanics, physics, botany, chemistry. One other subject must be selected from an established list. The Universities of Liverpool, Manchester, Leeds, and Sheffield

have the same matriculation examination administered by a joint board. This examination embraces English language and literature, English history, mathematics, and a choice of three, one of which must be a language, from the following list: (1) Greek, (2) Latin, (3) German, (4) French, (5) mechanics or physics, (6) chemistry, (7) geography, natural history.

The entrance or matriculation examinations of the other English and Welsh universities correspond closely to those given by the joint board just considered.

SCOTTISH UNIVERSITIES.

Candidates for the degree of LL. B. and B. L. in Scotland are required to possess much more preliminary training than obtains in England and Wales. Candidates for the LL. B. degree in Glasgow and Edinburgh must hold an arts degree from a recognized university. Candidates for the B. L. degree must pass the preliminary examination for admission to the course for the arts degree, Latin being required.

CONCLUSIONS AS TO THE PRELIMINARY EDUCATION.

It will be noted from the above detailed statement that in the English schools, including the schools of the law society and the inns of court, examinations are required in the English language and literature, mathematics, Latin, except in the schools having a joint matriculation examination, where, however, a foreign language is required. In Scotland a degree in arts is required if the applicant is a candidate for a degree of LL. B.

INTERMEDIATE EXAMINATIONS.

Examinations by the law society and council of legal education for enrollment as solicitors and call to the bar are given in two parts, called the intermediate and final examination. The intermediate examination of the law society is given four times a year. Articled clerks are eligible to take it after 12 months. Exemptions are allowed for all candidates who have taken examinations for the LL. B. degree at the universities of Great Britain or honors examinations at Oxford and Cambridge. The examination is based upon readings from some general text, such as Stephens' Commentaries on the Law of England, and thus constitutes a general elementary survey of the whole field of the law. The nonlegal examination, from which there are no exemptions, covers the subjects of trust accounts and bookkeeping, quite elementary in character. At the examination in 1913, 62 per cent of the applicants passed in the legal examination and 66 per cent in the nonlegal. The general scope of the examination is similar to the examinations in elementary law in American universities usually given as a nonprofessional course.

COUNCIL OF LEGAL EDUCATION.

The intermediate examinations of the council of legal education, which may be taken at any time after admission to the inns, are also held four times each year, papers being set in the following subjects: Roman law, constitutional law and legal history, criminal law and practice, real property or Hindu and Mohammedan law or Roman-Dutch law.

The only exemption from this examination is in the case of degree holders where Roman law was required, or those who have passed an examination in Roman law at a recognized school. The examination itself is very general in character. In content it is not as broad as that of the law society, except that Roman law is required, but a very elementary knowledge of Roman law is sufficient to pass the examination. The choice between real property and either Roman-Dutch law or Hindu-Mohammedan law is significant of the varied character of the British Empire and the many systems of law that come under its sway, and also of the fact that many British subjects, Hindus mostly, are students of the inns, who, after their call to the bar, practice in various parts of the Empire.

INTERMEDIATE EXAMINATIONS AT THE UNIVERSITIES.

The intermediate examination prevails in all the universities of England and Wales under various names. In the Scottish universities the intermediate and final system does not prevail, though the student is advised to pursue the subjects first that are indicated for the intermediate examinations in the English universities. Roman law is a subject in the intermediate examinations of all the universities; jurisprudence in four; law and customs of the constitution in seven; constitutional history in three; elementary law in one; international law in one. No intermediate examination includes real property or criminal law except that of the inns of court. In the United States all of the first-named subjects would be regarded as nonprofessional subjects, to be taught in the arts department rather than in the professional schools. The course in constitutional law is essentially an historical course, the frame of government of Great Britain excluding such subjects as constitutional limitations, which is an important topic in American law and legal instruction. The intermediate examination is taken after the period of one year in residence, and embraces at Cambridge and Oxford a large number of nonlegal subjects in addition to those already indicated. Thus at Oxford, where the A. B. degree is granted, the student must pass in translations from Latin prose authors, logic, or Bacon's *Novum Organum*. At the other English universities where the degree of LL. D. is granted, the intermediate usually includes some nonlegal topics, as philosophy or economics, logic or political economy, or ancient history (Leeds, Manchester, Liverpool, London).

FINAL EXAMINATIONS.

The final examinations which precede the call to the bar or the degree, are usually taken at the end of the third year of residence, although the period may be extended to four or five years at the option of the student. It is possible for a good student to prepare for all the examinations in a year and a half of study in the case of the examinations of the professional societies, and two years at Oxford or Cambridge, possibly less at the other universities, although it is not possible to be called to the bar, to be enrolled as a solicitor, or to secure a degree in less than three years of registration. Thus at the inns of court the final examination may be taken after keeping 6 terms, or 1½ years, but a call to the bar requires 12 terms.

The legal subjects offered in the schools of the professional societies and the universities correspond in the main to the subjects found in the curricula of the law schools of the United States. Topics are not so minutely divided for purposes of instruction as in America, equity embracing not only topics that are taught under that name, but the principles of trusts and quasi-contracts as well. Frequently the general title "mercantile law" will embrace bills and notes, sales and contracts. The equitable doctrines peculiar to contracts and torts are usually given as part of those subjects, while in America the opposite practice prevails. An examination of the papers set in legal subjects in England and Scotland gives the impression that the courses in law are much less intensive and thorough than in the best American schools. The lack of division in the topics and the relative shortness of the courses suggest the same conclusion. Such a conclusion, however, can not be based on the latter circumstance alone, owing to the methods of instruction, the formal lecture playing a relatively small part in the law student's education, supplemented as it is by private tuition and individual study. The general character of the final examinations is, however, an accurate index of the preparation expected.

The finals in the honor school of jurisprudence at Oxford and the law tripos at Cambridge are of a high order. It seems to be admitted that the standard of honor examinations in these two universities, from which come the bulk of university men who go to the bar in England, is much higher than that of the professional societies, and an effort has been made by the universities to secure exemption from the societies' examination for their students who have passed the honors examination in the particular subject. Two royal commissions on university education in London, the Gresham commission of 1895, and the commission headed by Lord Haldane, the present Lord Chancellor, reporting in 1913, have indorsed such a plan, but so far it has not met the approval of the professional societies concerned.

The exemption would secure a twofold purpose in the opinion of its advocates, a diminishing of the great number of examinations, and an increase of candidates for the bar who have pursued a university course.

DEGREES.

The usual baccalaureate degree in law is LL. B. At Cambridge this degree is given to those who successfully pass the law tripos or honors examination in addition to A. B. Those who fail to take honors, but pass the special and general examinations, receive the degree of A. B. merely. Oxford does not grant the LL. B. degree, but graduates in the honors school in jurisprudence receive the A. B. degree.

The first postgraduate degree at Oxford is B. C. L., requiring a year's study beyond the A. B. degree; the reading for this degree comprises a comprehensive course of legal study, recognition for which was asked of the professional societies previously referred to.

D. C. L. is conferred after five years' further study, on the basis of a thesis and examination. Cambridge and Liverpool confer as a second postgraduate degree LL. M. Candidates must be LL. B. of at least one year's standing. London, Manchester, Sheffield, Leeds, and Cambridge confer the degree of LL. D. The recipient must be a graduate of five years' standing, and the degree is awarded upon the basis of a thesis and examination. The thesis is the essential thing and must indicate distinguished attainment in some branch of legal learning. No course of study is provided for this degree, and it is not strictly a degree in course. The University of Durham, although it does not maintain courses in law, examines for and confers B. C. L. and D. C. L.

The law schools of the professional societies do not confer degrees, although the school of the law society maintains a course preparing students for the LL. B. examination of the University of London. A number of other English universities also maintain courses for the London LL. B.

HONORS.

An extensive system of prizes has been developed by the universities, notably Oxford and Cambridge, for the purpose of encouraging scholarship. The honors school of jurisprudence at Oxford and the law tripos at Cambridge are based upon special attainments, beyond the ordinary pass degree, both in the standard and scope of the examination. In addition there are numerous scholarships and special awards. Both professional societies offer prizes and scholarships. Honor examinations, open to men who have attained a certain standard, are held by the law society after each final. The subjects covered are the same as in the final, though of a more searching

character. Of the 635 students in 1913 taking the finals, 312, or 49 per cent, took the honors examination, and 55 of these, or 17 per cent, passed, indicating a relatively high standard. The awarding of most of the prizes and scholarships offered by the society depends on the result of the honors examinations. The council on legal education likewise holds honors examinations after each final, and on these much depends in the way of prizes and professional arrangements.

CALLS TO THE BAR.

Having completed the requisite number of terms in his inn and passed the final examinations, the student is called to the bar by the inn of which he is a member. This is an occasion of some ceremony. The names of those called are entered on the records of the High Court and the barrister is then authorized to act as an advocate. The solicitor student, having served the requisite period under articles, passed his final examinations, and filed a statement of his service by the solicitor to whom he was articulated, is given a certificate of admission, which when signed by the master of the rolls entitles him to enrollment as a solicitor. The total fees exclusive of the fees paid to the solicitor amount to \$650.

In Scotland the bar is also divided into two divisions, comprising the society of law agents, or writers to the signet, comparable in the duties and privileges to the solicitors in England, and the faculty of advocates, similar to the barrister. No schools are maintained by these societies and admission is obtained by apprenticeship and examination.

In the case of law agents an apprenticeship of five years is required, except for those holding an arts or law degree from any university in Great Britain and Ireland, when the period of apprenticeship is three years. Holders of the LL. B. or B. L. degree of any Scottish university, who have served a three years' apprenticeship, are admitted without examination except as to forms of process subject to the qualification. If Scots law or conveyancing is omitted from the subjects covered by the degree, the law examination in the omitted subjects must be passed. The applicant for admission to the faculty of advocates must attain a degree of scholarship as represented by the attainments of the holder of an A. M. degree of a Scottish university or the holders of bachelor of arts degrees from certain other universities recognized by the dean of the faculty of advocates. If the applicant has not so graduated, he must pass an examination in Latin, Greek, or (in his option) French, German, or Italian; mathematics or natural philosophy or chemistry; metaphysics and logic or moral philosophy and logic; and the history of the United Kingdom.

One year after satisfying these requirements the applicant may proceed with his examination in law, provided he has not engaged in any trade or profession during the year, either as principal or agent, and, provided further, that he shall produce evidence of attendance such as is required for a law degree in a class in Scots law, and a class in conveyancing in a Scottish university and evidence of like attendance in a class of (a) civil law; (b) philosophy of law and international law, public or private; (c) constitutional law or history in a Scottish university or another university or school as may seem to the dean and council of advocates equivalent thereto, and (d) medical jurisprudence in a university or a school qualifying for university degrees. On the producing of the above evidence, the applicant is examined in the subjects heretofore set out.

If the applicant has obtained the degree of LL. B. from a Scottish university upon an examination on the subjects stated above, he is deemed qualified in law without further examination. Applicants are then admitted by vote of the faculty of advocates after defending publicly a thesis assigned from the Pandects by the dean of the advocates. The advocate is entitled to plead in every court in Scotland. The principal law offices of the Crown, the judges of the court of session, and the sheriffs are chosen from the faculty of advocates.

The examinations in both the schools of the professional societies and the universities are conducted by special examiners appointed for the occasion. The instructor who gives the course may be a member of the examining board, though not necessarily so. This practice is quite the reverse of the methods obtaining in the United States, where the instructor gives the examination in the subject taught by him. The English system resembles rather admission to the bar in most American States, where the board of examiners have no part in the instruction of the persons examined. It is customary for an instructor in one school to act as examiner in another school.

The common form of examination in American law schools is by hypothetical questions. This form is sparingly used in Great Britain, particularly in the intermediate examination; somewhat more so in the finals and honors examination. The examination would be of inordinate length if the hypothetical case were alone used, because of the great scope of the examination. A great deal of narrative matter is demanded, on account of the historical emphasis which characterizes so many of the courses. Stress is laid on wide reading and information rather than on legal reasoning.

METHODS OF INSTRUCTION.

As to the methods of instruction it is difficult to speak with precision. In general, the formal lecture method obtains, a form of teaching that is now little employed in American schools. It is to

be remembered, however, that instruction in Great Britain does not end with the lecture; in fact the lectures are supplemented by an elaborate tutorial system, and the bulk of the work is done under tutors and special coaches. While the practice of compelling attendance at lectures obtains in many of the newer universities, attendance is not required by the schools of the professional societies or the universities of Cambridge and Oxford. In addition to the lectures, readings in approved treatises are suggested, and the examinations are framed on the content of such treatises. Cases are not used as the sole basis of instruction, and, when used at all, are merely illustrative. The tendency, however, is away from the formal methods now so largely in vogue.

IN GENERAL.

It seems to be agreed that the best men who come into the professions do not as a rule do so through the law courses of the universities. The reason for this is partly due to the fact that the great academic prizes at Oxford and Cambridge are in the humanities and mathematics. The best-prepared men accordingly go into these subjects, for traditionally the winners of the big academic prizes have a certain prestige that later on stands them in good stead professionally. It is possible to keep terms at the inns while in residence at the university, and a year or so of study in chambers in London enables men to pass the rather elementary legal tests. Another reason doubtless is that no credit for the work done at the university, aside from a few topics, is given by the professional societies.

This situation is gradually changing, however. Outside of Oxford and Cambridge the number taking law degrees is very small. It is within the power of the professional societies to change the practice by insisting upon higher preliminary training and more thorough legal training. The royal commission on university education in London in its report in 1913 strongly advocates a great law school in London whose professors shall engage in scientific work and teaching, this school to be connected with a university. The commission seems to feel that it is a serious drawback to the law schools of the professional societies that they are so absolutely separated from general university influences. At present the bulk of the law teaching is done by members of the bar in practice, and it seems to be the sentiment of the profession that this is the proper arrangement. It is urged that university teachers are too theoretical; that they are not in a proper position to convey an adequate idea of the law. This attitude is in striking contrast to the continental idea and the growing practice in America of recognizing law teaching as a distinct profession.

One striking point of contrast between the curriculum of the English and American law schools is the attention given to Roman law, and

the general sentiment of teachers and lawyers that a correct understanding of the English common law can only be had through the portals of the civil law. There is much to be said for this attitude and it is recognized by law teachers and legal scholars in America, but so far little progress has been made in offering effective courses, owing to the feeling on the part of students, reflecting the views of the profession, that such courses are not practical.

Another feature of the English practice that is of great value and to be commended is the emphasis placed on the study of the history of the law. Many doctrines of the common law are not intelligible when taken out of the historical setting, a fact which American law teachers appreciate but are not able as yet to realize in their teachings, owing to the pressure of time and demands for courses in practice.

The so-called practice courses, so much a feature of American law schools, are notably absent from the curricula of English schools. This is due in part, no doubt, to the conviction that such courses can not be effectively given in universities, and in part to the practice of reading in chambers and serving as articled clerks. The English schools are not expected to fit students for active practice while the American schools are, and have in many cases carried practice instruction to a length unjustified by the results obtainable. The large amount of time given to Roman law and history of law means a very brief course in English law, far too brief for effective training. American schools err on the other side, and while the training in the common law is admirable in the better American schools and in every way superior to anything that is being done in Great Britain, yet the history of law, comparative law, and Roman law are for the most part ignored. Among the many plans suggested for improving legal education in Great Britain, one of the most admirable is to give credit for substantive law courses pursued at the universities, the professional societies confining their activities to instruction in matters of practice. It is believed that this would encourage an extension of the English law courses in the universities and also compel the student to be trained in matters of practice before entering the profession, something that is not at present required of barristers, though it is of solicitors under the system of articled clerks. The present Scotch system carries out this idea in part, since the degree from the university satisfies the general knowledge of law requirement. In America the desired combination of thorough training in substantive law coupled with familiarity with practice can be worked out through requirement of an office apprenticeship in addition to the law-school training.

The English schools are distinctly inferior to the American schools of the better type in the point of teaching the English law. Yet,

in spite of this, the English bar as a whole is without question in point of efficiency and professional spirit superior to the bar in America. The administration of justice in England, particularly in the matter of criminal justice, is more speedy and efficient than in America. For this there are many reasons, but one of the most potent lies in the character of the bar itself. This superiority is due in part to the strong professional spirit, but largely to the thorough general education that in practice precedes the entry upon legal study and a professional career. Over one-half the barristers in England are university graduates. One of the lessons that America can draw from England is the insistence not so much on severe prolonged legal training for those seeking a legal career as upon a broad and thorough university training.



STATISTICS OF CERTAIN
MANUAL TRAINING, AGRICULTURAL,
AND INDUSTRIAL SCHOOLS,
1913-1914



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CONTENTS.

	Page.
Table 1.—Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14.....	6
Table 2.—Public manual-training high schools—Instructors and students, 1913-14.....	29
Table 3.—Public manual-training high schools—Property, equipment, and expenditure, 1913-14.....	30
Table 4.—Schools of agriculture—Instructors and students, 1913-14.....	31
Table 5.—Schools of agriculture—Property, equipment, and expenditure, 1913-14.....	32
Table 6.—Manual and industrial training schools—Instructors and students, 1913-14, not including Indian schools.....	34
Table 7.—Manual and industrial training schools—Property, equipment, and expenditures, 1913-14, not including Indian schools.....	36
Table 8.—Industrial schools for Indian children—Instructors and students, 1913-14.....	38
Table 9.—Number of instructors and students, by sex, in manual and industrial training schools, public manual-training high schools, and schools of agriculture, 1913-14, not including Indian schools.....	39
Table 10.—Manual and industrial training schools, public manual-training high schools, and schools of agriculture—Property and equipment for 1913-14, not including Indian schools.....	40
Table 11.—Manual and industrial training schools, public manual-training high schools, and schools of agriculture reporting expenditures for 1913-14, not including Indian schools.....	41
Table 12.—Instructors and students in manual and industrial training schools, public manual-training high schools, and schools of agriculture, 1913-14, not including Indian schools.....	42
Table 13.—Number of instructors and students, by sex, in manual and industrial training schools, public manual-training high schools, and schools of agriculture, 1913-14, including Indian schools.....	43
Table 14.—Public manual-training high schools—Instructors and students, 1913-14.....	44
Table 15.—Public manual-training high schools—Property and expenditures, 1913-14.....	46
Table 16.—Schools of agriculture—Instructors and students, 1913-14.....	48
Table 17.—Schools of agriculture—Property and expenditures, 1913-14.....	53
Table 18.—Manual and industrial training schools—Instructors and students, 1913-14.....	57
Table 19.—Manual and industrial training schools—Property and expenditures, 1913-14.....	66
Table 20.—Industrial schools for Indian children—Instructors and students, 1913-14.....	74
Table 21.—Industrial schools for Indian children—Property and expenditures, 1913-14.....	77

STATISTICS OF CERTAIN MANUAL TRAINING, AGRICULTURAL, AND INDUSTRIAL SCHOOLS, 1913-14.¹

This bulletin presents the statistics of 479 manual training schools, agricultural schools, and industrial, trade, and vocational schools for 1914. At present these are divided into four groups. A new grouping is contemplated by the bureau, and a more adequate classification of institutions will be made.

Tables 2, 3, 14, and 15 give the statistics of 55 public manual-training high schools. This group should include only schools which do not primarily prepare students for some trade or vocation.

Tables 4, 5, 16, and 17 present statistics of 115 agricultural schools. Some of these are known as State agricultural high schools, some as district, and some as county agricultural high schools. The list also includes private agricultural schools of high-school grade. In Table 16 an attempt is made to indicate each school's source of income.

Tables 6, 7, 18, and 19 include the statistics of 229 manual, industrial, vocational, technical, and trade schools.

Tables 8, 20, and 21 present the statistics of 80 industrial schools for Indians. Many of the schools in this group do not report students of high-school grade.

General or combined summaries of the four groups of schools will be found in Tables 9, 10, 11, 12, and 13. These tables are given to facilitate comparison with former years when all these schools were included in one list.

In addition to the schools mentioned above, Table 1 presents a list of 1,414 public high schools having 55,946 students in manual training, 19,909 in courses in agriculture, and 67,521 in courses in domestic economy. The same students may be in different courses, but no school reporting less than 20 students in at least one of these courses is included in the list. A complete summary of students in these courses reported by all the public high schools will be found in the chapter on public and private high schools of the 1914 Report of the Commissioner of Education.² Enrollment in similar courses in private high schools and academies is also summarized in that chapter.

The bureau has a list of more than 100 schools of the classes included in this chapter from which no statistical information could be obtained. It is expected that most of these schools will be able to report on the revised schedules for 1915.

¹ Material under this heading for previous years will be found in the Annual Reports of the Commissioner of Education. (For example, Ch. XI, Vol. II, 1913.)

² See pp. 412 and 413.

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
ALABAMA.							
Alexander City	High School					4	41
Atmore	Escambia County High School			29	25		
Birmingham	Central High School	29	0			0	510
Brundidge	Pike County High School	23	0	33	24	0	2
Center	Cherokee County High School			29	18		
Columbia	Houston County High School			25	20	0	32
Dora	High School			35	22		
Dothan	do	69	0			0	96
Enterprise	Coffee County High School			36	43	0	51
Hartford	Geneva County High School	15	0	43	48	0	49
Hartsells	Morgan County High School					0	32
Lanett	High School	20	0	35	34	0	34
Leighton	Colbert County High School	6	2	23	20	0	20
Mobile	High School	53	0			0	163
Do	Owens Academy (negro)	20	0	20	69	0	69
Montgomery	Lanier High School	163	0			0	277
Moulton	Lawrence County High School	8	0	40	33	0	32
Notasulga	Macon County High School			29	37		
Opelika	Lee County High School			46	71		
Opp	High School	27	0			0	20
Rogersville	Lauderdale County High School	56	0	60	59	0	59
Russellville	Franklin County High School			15	35		
Scottsboro	Jackson County High School	30	0	10	0	0	8
Selma	High School	72	0			0	123
ARIZONA.							
Phoenix	Union High School	54	0	34	0	0	74
Tempe	do	36	0			0	20
ARKANSAS.							
Arkadelphia	High School			11	0	0	21
Camden	do					0	60
Cane Hill	do	4	3	13	14		
Crossett	do	30	0			0	18
Green Forest	do			20	45		
Little Rock	M. W. Gibbs High School (negro)	54	0			0	146
Mount Judea	High School			12	9		
Palestine	do			4	18	0	18
Pine Bluff	do	45	0			0	75
Prescott	do					0	60
Springfield	do			12	8		
Vilonia (R. F. D. No. 1)	Pleasant Valley High School			10	12		
CALIFORNIA.							
Alameda	High School	38	19	19	4	0	16
Alhambra	do	27	0			0	24
Anaheim	Union High School	30	0			0	24
Asus	Citrus Union High School	32	3	4	8	9	27
Bakersfield	Kern County High School	110	0	29	1	0	75
Benicia	High School	20	0				
Berkeley	do	80	0			0	85
Brawley	do	18	3	6	0		18
Burbank	Union High School	4	2			0	21
Chico	High School	60	0	45	15	0	40
Colusa	do	11	1			0	26
Compton	Union High School	20	0			0	30
Covina	do	30	0			0	31
Crescent City	Del Norte County High School					0	20
Delano	Union High School			21	0		
Escondido	High School	44	5			0	21
Eureka	do	29	1			0	73
Fullerton	Union High School	87	0	10	1	0	81

TABLE 1.—Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
CALIFORNIA—contd.							
Glendale.....	Union High School.....	37	0	17	1	0	89
Gridley.....	do.....	10	0	9	0	0	26
Hanford.....	do.....	.....	.....	30	0	0	55
Hayward.....	do.....	.....	.....	.....	.....	0	20
Hemet.....	do.....	50	6	.....	.....	0	30
Hollister.....	San Benito County High School.....	30	20	20	20	.....	.....
Huntington Park.....	Union High School.....	12	0	.....	.....	0	30
Imperial.....	Imperial Valley Union High School.....	35	0	9	0	0	30
Inglewood.....	Union High School.....	20	5	15	0	0	20
Le Grand.....	do.....	20	0	10	0	0	25
Lincoln.....	do.....	12	0	.....	.....	0	24
Livermore.....	do.....	.....	.....	18	6	0	9
Los Angeles.....	Manual Arts High School.....	383	0	.....	.....	.....	261
Do.....	Hollywood High School.....	82	15	23	0	4	149
Madera.....	Union High School.....	21	1	.....	.....	0	42
Merced.....	Merced County High School.....	17	3	.....	.....	0	30
Mill Valley.....	Tamalpais Polytechnic High School.....	33	1	.....	.....	0	35
Monterey.....	Monterey County High School.....	10	0	.....	.....	1	20
Mountain View.....	High School.....	20	2	.....	.....	0	20
Napa.....	do.....	54	8	30	20	0	40
Ontario.....	Chaffey Union High School.....	25	0	15	0	0	25
Pasadena.....	High School.....	86	0	58	0	0	128
Petaluma.....	do.....	24	0	.....	.....	.....	.....
Pomona.....	do.....	104	0	52	27	0	158
Portersville.....	do.....	40	0	24	2	0	40
Redding.....	Shasta County High School.....	21	0	1	0	0	1
Redwood City.....	Sequoia Union High School.....	20	0	.....	.....	0	21
Riverside.....	Girls' High School.....	.....	.....	.....	.....	0	23
Roseville.....	Union High School.....	26	6	.....	.....	0	26
St. Helena.....	do.....	19	0	.....	.....	0	24
San Bernardino.....	High School.....	57	0	.....	.....	0	58
San Diego.....	do.....	386	50	.....	.....	0	42
San Fernando.....	Union High School.....	37	0	.....	.....	0	12
Santa Ana.....	High School.....	70	0	14	0	0	10
Santa Barbara.....	do.....	97	7	28	0	0	43
Santa Cruz.....	do.....	90	0	25	15	0	60
Santa Monica.....	do.....	45	0	32	0	0	47
Santa Rosa.....	do.....	48	0	.....	.....	0	53
Salma.....	Union High School.....	51	0	9	0	0	50
South Pasadena.....	High School.....	40	3	.....	.....	0	60
Tulare.....	do.....	51	0	17	9	.....	.....
Turlock.....	Union High School.....	.....	.....	.....	.....	0	30
Vacaville.....	do.....	.....	.....	.....	.....	0	22
Ventura.....	do.....	18	10	5	4	0	15
Visalia.....	High School.....	35	0	.....	.....	0	60
Whittier.....	Union High School.....	36	5	20	0	0	40
Woodland.....	High School.....	45	0	.....	.....	0	57
COLORADO.							
Boulder.....	State Preparatory School.....	26	1	.....	.....	0	30
Colorado Springs.....	High School.....	120	0	.....	.....	0	80
Del Norte.....	do.....	.....	.....	.....	.....	0	22
Durango.....	do.....	.....	.....	.....	.....	0	50
Granada.....	Union High School.....	27	0	.....	.....	0	28
Gunnison.....	Gunnison County High School.....	17	11	1	0	0	18
Holly.....	Union High School.....	.....	.....	10	0	0	30
Hotchkiss.....	High School.....	14	0	16	9	.....	.....
Montrose.....	Montrose County High School.....	8	0	12	10	0	25
Paoia.....	High School.....	12	0	16	0	0	30
Pueblo.....	Centennial High School.....	35	0	.....	.....	0	82
Do.....	High School (district No. 20).....	126	0	.....	.....	0	65
Sterling.....	Logan County High School.....	30	0	12	0	0	20
Trinidad.....	High School.....	46	0	.....	.....	0	38

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
CONNECTICUT.							
Ansonia.....	High School.....	56	1				
Hartford.....	do.....	150	115			0	115
Meriden.....	do.....	64	0			0	110
New Haven.....	do.....	677	340			0	340
Newtown.....	do.....			8	13		
Waterbury.....	Crosby High School.....	169	0				
DELAWARE.							
Wilmington.....	High School.....	234	0			0	243
FLORIDA.							
Bradentown.....	Manatee County High School.....					0	30
Clearwater.....	High School.....	16	0			0	30
Jacksonville.....	Duval County High School.....	60	0			0	110
Jennings.....	High School.....			4	21		
Miami.....	Washington High School (negro).....	20	16	8	7	1	20
St. Augustine.....	High School.....	41	0			0	52
Tampa.....	Hillsborough County High School.....	81	0			0	112
GEORGIA.							
Albany.....	High School.....					0	53
Athens.....	High and Industrial School (negro).....	11	0			0	37
Augusta.....	Academy of Richmond County.....	67	0				
Do.....	Tubman High School (girls).....					0	150
Columbus.....	High School.....	60	0			0	140
Do.....	High School (negro).....	20	0			0	36
Commerce.....	High School.....					0	47
Cornelia.....	do.....			21	19		
Elberton.....	do.....					0	60
Fitzgerald.....	do.....					0	93
Lexington.....	Meson Academy.....			16	8		
Macon.....	Gresham High School (girls).....					0	325
Savannah.....	High School.....	47	68			0	77
Warrenton.....	do.....					0	29
IDAHO.							
American Falls.....	High School.....	16	0			0	22
Blackfoot.....	do.....	12	0	9	5	1	38
Boise.....	do.....	180	0	98	3	0	245
Buhl.....	do.....			14	0	0	34
Burley.....	do.....	20	15	30	10	0	25
Caldwell.....	do.....	42	0			0	56
Coeur d'Alene.....	do.....	40	0			0	60
Emmett.....	do.....			38	0	2	50
Idaho Falls.....	do.....	30	20	27	0	0	35
Kellogg.....	Wardner-Kellogg Union High School.....	38	0			0	40
Lapwal.....	High School.....	12	1	20	4	0	20
Lewiston.....	do.....	35	0			0	71
Meridian.....	do.....	11	4	22	0	1	35
Mountain Home.....	do.....	12	8	3	3	0	28
Nampa.....	do.....	50	0	12	20	0	75
Nespece.....	do.....			24	0	0	20
Post Falls.....	do.....	33	0	12	6	0	34
Rigby.....	do.....			10	0	0	28
Rupert.....	do.....	45	0			0	57
Twin Falls.....	do.....	36	0	18	2	0	40
ILLINOIS.							
Alexis.....	High School.....	32	0			0	18
Assumption.....	do.....					0	27
Aurora.....	East High School.....	24	0			0	14
Beardstown.....	Lincoln High School.....	60	0				
Belvidere.....	High School.....	72	0	24	0		

TABLE 1.—Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
ILLINOIS—contd.							
Benton	Benton Township High School..	18	0			0	22
Bloomington	High School.....	72	0	40	0	0	58
Canton	do.....	18	0			0	44
Centralia	Centralia Township High School..	14	0	8	0	0	24
Chicago	Austin High School.....	70	0			0	65
Do	Calumet High School.....	45	18			0	4
Do	Carl Schurz High School.....	110	0			0	91
Do	Francis W. Parker High School..	40	0			0	27
Do	George William Curtis High School.	51	0			0	28
Do	Harrison Technical High School..	146	0			0	45
Do	James H. Bowen High School.....	125	0			0	25
Do	John Marshall High School.....	50	0			0	60
Do	Lake High School.....	239	0				
Do	Lake View High School.....	37	0			0	85
Do	Murray F. Tuley Evening High School.	37	0				
Do	Wendell Phillips High School.....	87	34			0	48
Do	William McKinley High School.....	18	0			0	101
Chicago Heights	Bloom Township High School.....	37	0			0	28
Clinton	High School.....	25	0				
Danville	do.....					0	96
Decatur	do.....	55	0			0	90
De Kalb	De Kalb Township High School.....	48	9	13	0	0	33
Effingham	High School.....					0	42
Eldorado	do.....	20	0	5	0		
Elgin	do.....	30	0			0	10
Evanston	Evanston Township High School.....	33	0			0	
Fairbury	High School.....	57	0			0	77
Fairfield	do.....			9	11	0	34
Freeport	do.....	88	0			0	68
Galena	do.....	26	0	12	0		
Galesburg	do.....	120	0	199	204	0	163
Galva	do.....	31	0			0	36
Gibson City	Drummer Township High School.....	24	0			0	16
Harrisburg	Harrisburg Township High School.	17	5			0	47
Harvey	Thornton Township High School.....	87	0			0	54
Henry	High School.....					0	36
Joliet	Joliet Township High School.....	136	0			0	124
Kewanee	High School.....	80	0	22	6	0	35
Kirkwood	do.....	24	0			0	26
La Grange	Lyons Township High School.....	50	0	25	30	0	7
Lawrenceville	High School.....					0	30
Litchfield	do.....					0	33
Lockport	do.....	30	0			0	30
Mazon	Mazon Township High School.....			22	0	0	30
Mt. Vernon	High School.....					0	25
Moline	do.....	60	0			0	40
Mount Pulaski	Mount Pulaski Township High School.	18	0	9	0	0	24
Mount Vernon	Mount Vernon Township High School.	32	0	35	0	0	32
Murphysboro	High School.....	21	0	8	0	0	33
Paris	do.....	25	0			0	20
Peoria	do.....					0	31
Plano	do.....	10	0			0	20
Pontiac	Pontiac Township High School.....	31	0	9	0	0	22
Princeton	Princeton Township High School.....	27	0	10	0	0	40
Robinson	Robinson Township High School.....	20	0	15	0	0	50
Rockford	High School.....	190	0			0	192
Rock Island	do.....	200	0			0	72
Shelbyville	do.....	20	0			0	30
Toulon	Toulon Township High School.....			25	30	0	60
Urbana	Thornburn High School.....	30	0			0	18
Warren	High School.....	10	14				
Waukegan	Waukegan Township High School.	50	0			0	90
White Hall	High School.....			18	10	0	60

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
INDIANA.							
Attica.....	High School.....			8	0	0	26
Berne.....	do.....	13	0			0	21
Brookville.....	do.....			15	0	0	26
Charlestown.....	do.....	15	0	30	10	0	10
Churubusco.....	do.....	17	0	5	0	0	23
Clifford.....	Flat Rock Township High School.....			10	0	0	21
Columbia City.....	High School.....	20	0			0	20
Crown Point.....	do.....	29	0	18	3	0	58
Danville.....	do.....	10	0	16	18	0	32
Decatur.....	do.....			28	0	0	32
East Chicago.....	do.....	18	0			0	20
Edinburg.....	do.....	40	0			0	47
English.....	do.....	25	0			0	20
Evansville.....	do.....	195	0			0	238
Farmersburg.....	do.....	12		20	16		
Fort Branch.....	do.....		24				
Fort Wayne.....	High and Manual Training School.....	341	0			0	204
Frankfort.....	High School.....			14	0	0	75
Franklin (R. F. D. No. 2).....	Hopewell High School.....	22	0	10	0	0	6
Franklin (R. F. D.).....	Union Township High School.....			20	0	0	20
Freedom.....	High School.....			23	12		
Freelandville.....	do.....			5	0	0	21
Fulton.....	do.....	28	0	28	12	0	12
Gas City.....	do.....	33	0			0	47
Goodland.....	do.....	25	0			0	49
Henryville.....	do.....			4	1	0	26
Kevanna.....	do.....	19	0			0	21
Knightstown.....	do.....	22	0			0	28
Lafayette.....	do.....					0	50
Larwill.....	do.....	16	0	5	13	0	24
Lawrenceburg.....	do.....	31	0			0	15
Lebanon.....	do.....			25	10	0	23
Liberty.....	do.....	20	0	7	6	0	27
Linden.....	do.....	16	0	10	0	0	20
Little York.....	Gibson Township High School.....			15	8		
Lowell.....	High School.....			27	5	0	18
Lynn.....	Washington Township High School.....	24	0			0	46
Martinsville.....	High School.....			29	42		
Medaryville.....	do.....			16	12	0	37
Middlebury.....	do.....			25	0	0	12
Mishawaka.....	do.....	36	0	14	0	0	27
Montmorenci.....	do.....	23	0			0	20
Mooresville.....	do.....	25	0	30	0	0	65
Muncie.....	do.....	20	0			0	28
New Albany.....	Scribner High School (negro).....	8	0			0	21
Newburgh.....	High School.....			31	31		
Newtown.....	do.....	8	20	3			
North Salem.....	do.....	8	0	0	20		
Oxford.....	do.....	40	8			0	30
Paoli.....	do.....	12	0	11	18	0	13
Parker.....	Monroe Township High School.....	22	0			0	27
Pennville.....	High School.....	25	0	12	0	0	25
Poseyville.....	do.....	18	0			0	32
Rensselaer.....	do.....					0	20
Riley.....	do.....	14	0			0	26
Rushville.....	do.....					0	54
Salem.....	do.....	45	0			0	40
Scipio.....	do.....			4	4	0	21
Shelbyville.....	do.....	76	0			0	60
South Bend.....	do.....	124	2	5	2	0	53
Star City.....	do.....	10	0	11	0	0	34
Summitville.....	do.....	28	0			0	30
Terre Haute.....	Garfield High School.....	56	0			0	61
Do.....	Wiley High School.....	39	0	7	10	0	47
Valley Mills.....	High School.....			7	16	0	16

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
INDIANA—contd.							
Vevay.....	High School.....			13	11	0	34
Wabash.....	do.....	30	0			0	15
Warsaw.....	do.....			14	0	0	40
Washington.....	do.....	25	0	5	10	0	25
Waterloo.....	do.....	15	0	9	18	0	34
Westfield.....	Washington Township High School.....			25	0	0	25
West Lebanon.....	High School.....			15	10	0	15
Westport.....	do.....			14	0	0	25
West Terre Haute.....	do.....	20	0	11	0	0	18
Whiteland (R. F. D., No. 15.)	Clark Township High School.....			18	0	0	22
Whiting.....	High School.....	41	0			0	33
IOWA.							
Ackley.....	High School.....	30	0			0	28
Albia.....	do.....	20	0				
Algona.....	do.....	36	0	8	20	0	36
Alta.....	do.....			9	12		
Bedford.....	do.....	96	16	5	9	0	24
Boone.....	do.....	20	0	8	16	0	23
Burlington.....	do.....	57	0			0	115
Chariton.....	do.....	30	0	6	28	0	32
Charles City.....	do.....	38	7	10	2	0	53
Cherokee.....	do.....	10	0	4	16	0	33
Clarinda.....	do.....			12	13		
Clarion.....	do.....	35	6	5	4	0	29
Clear Lake.....	do.....	50	0	20	0	0	30
Coin.....	do.....	15	0	3	1	0	21
Corning.....	do.....					0	65
Correctionville.....	do.....			3	5	0	20
Corydon.....	do.....			8	13	0	26
Cresco.....	do.....			9	16	0	16
Creston.....	do.....	45	0	20	0	0	65
Davenport.....	do.....	104	0			0	102
Decorah.....	do.....	10	12			0	30
Denison.....	do.....	37	34	11	0	0	14
Des Moines.....	North Des Moines High School.....	42	0				
Dubuque.....	High School.....	48	2	7	6	0	90
Earlham.....	Academy and High School.....			11	17	0	17
Fairfield.....	High School.....	38	0	10	17	0	61
Forest City.....	do.....	17	0			0	27
Goldfield.....	do.....	34	0	11	0	0	48
Greenfield.....	do.....			15	10		
Grinnell.....	do.....	39	0	4	3	0	42
Grisold.....	do.....	26	0	3	11	0	46
Harlan.....	do.....			10	8	0	28
Hawarden.....	do.....	5	0	35	22	0	4
Humboldt.....	do.....			14	8	2	43
Independence.....	do.....	22	0	2	8	0	49
Inwood.....	do.....					0	30
Iowa Falls.....	do.....	30	2			0	45
Keokuk.....	do.....	35	0			0	60
Kirkman.....	do.....	10	1	6	4	0	20
Laurens.....	Central High School.....	18	0	6	0	0	23
Marango.....	High School.....			20	3		
Marion.....	do.....	63	0			0	80
Marshalltown.....	do.....	49	0	19	4	0	60
Mason City.....	do.....	59	0	3	15	0	77
Missouri Valley.....	do.....	21	3				
Montezuma.....	do.....	40	4			0	34
Muscataine.....	do.....	29	15				
Nevada.....	do.....	12	10				
Newton.....	do.....	20	0	1	20	0	25
North English.....	do.....			15	15	3	9
Oakland.....	do.....	36	0	5	23		19
Oelwein.....	do.....	45	0			0	49
Onawa.....	do.....	24	2				

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
IOWA—continued.							
Oscola.....	High School.....	12	7	15	14	0	8
Oskaloosa.....	do.....	24	0			0	30
Preston.....	do.....			15	9		
Red Oak.....	do.....	30	0	20	0	0	68
Rock Rapids.....	do.....	18	0			0	45
Rock Valley.....	do.....	15	0			0	24
Sac City.....	do.....			15	15	0	20
Shell Rock.....	do.....	37	0	37	33	0	33
Thurman.....	do.....			7	12		
Villaseca.....	do.....			7	33	0	21
Walker.....	do.....			15	16	0	10
Washington.....	do.....	35	0				
Waterloo.....	East Waterloo High School.....	101	0	20	5	0	127
Waverly.....	High School.....	77	0	25	30	0	114
Webster City.....	do.....			10	13	0	17
West Liberty.....	do.....	13	0	56	0	0	49
What Cheer.....	do.....	18	10	5	6	0	20
KANSAS.							
Abilene.....	High School.....	36	0	18	0	0	36
Alma.....	do.....			0	24		
Altamont.....	Labette County High School.....	27	1	12	10	0	28
Arkansas City.....	High School.....	66	50	8	28	0	42
Beloit.....	do.....	38	0	13	2	0	42
Burlingame.....	do.....	20	0			0	25
Caney.....	do.....	19	0	8	11	0	37
Chanute.....	do.....			50	0		
Clay Center.....	Clay County High School.....	40	0	9	6	0	59
Clifton.....	High School.....	12	0	14	0	0	28
Coffeyville.....	do.....	65	1	15	5	0	60
Concordia.....	do.....	32	0			0	4
Cottonwood Falls.....	Chase County High School.....	15	0	10	2	0	30
Emingham.....	Atchison County High School.....	12	0	20	0	0	19
El Dorado.....	High School.....	33	0	14	10	0	88
Ellinwood.....	do.....	20	0	19	0	0	22
Ellsworth.....	do.....	38	0	11	0	0	27
Eureka.....	do.....	34	0	10	0	0	13
Frankfort.....	do.....			16	0	0	54
Garden City.....	do.....	10	0	6	2	0	20
Garnett.....	do.....	18	0				42
Girard.....	do.....	41	0	10	2	0	78
Great Bend.....	do.....			10	40		
Hays.....	do.....	11	0			0	22
Hiawatha.....	do.....	22	0	5	1	0	27
Holsington.....	do.....	35	0	12	6	0	40
Horton.....	do.....	31	0			0	31
Howard.....	do.....	18	0	9	11	0	13
Hutchinson.....	do.....	117	0			0	102
Jewell.....	do.....	16	0	23	0	0	25
Kansas City.....	Argentine High School.....	33	0				39
Do.....	Sumner High School (negro).....	69	0			6	92
Kincaid.....	High School.....	8	0	10	12	0	10
Kingman.....	do.....	54	0	16	0	0	60
Kinsley.....	do.....	12	0	28	0	0	28
La Crosse.....	do.....			23	0		
La Harpe.....	do.....			5	3	0	24
Lawrence.....	do.....	150	0			0	180
Le Roy.....	do.....	16	0	8	10	0	24
Lincoln.....	do.....	5	0	8	12	0	24
Longton.....	do.....			15	17		
McPherson.....	do.....	22	0	10	8	0	40
Mankato.....	do.....			20	0	0	16
Marion.....	do.....	20	0	7	0	0	30
Neodesha.....	do.....	12	0	4	0	0	20
Newton.....	do.....	80	0	20	0	0	55
Nickerson.....	Reno County High School.....	40	0	44	35	0	68
Olathe.....	High School.....	66	0			0	49
Onaga.....	do.....			7	2	0	28

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
KANSAS—contd.							
Osawatomie.....	High School.....	19	0	5	13	0	34
Osborne.....	do.....	27	0	9	0	0	36
Ottawa.....	do.....	37	0	20	30	0	60
Paxico.....	do.....			8	13		
Peabody.....	do.....	13	0	13	6	0	35
Phillipsburg.....	do.....					0	30
Pleasanton.....	do.....	19	0	16	8	0	45
Powhattan.....	do.....			16	27		
Pratt.....	do.....	24	0	13	0	0	28
Rossville.....	do.....	8	0	18	0	0	32
Russell.....	do.....	2	0	25	5	0	40
Sabetha.....	do.....	9	0	12	8	0	16
St. John.....	do.....	24	1	6	3	0	19
Salina.....	do.....	58	0	8	2	0	96
Smith Center.....	do.....	70	0	20	14	0	52
Sterling.....	do.....	36	0	13	5	0	74
Tonganoxie.....	do.....			15	0	0	20
Valley Center.....	do.....					0	21
Webber.....	do.....			7	13		
Wichita.....	do.....	249	2			0	272
Winfield.....	do.....	88	0	28	37	0	117
KENTUCKY.							
Ashland.....	High School.....			10	20		
Calhoun.....	McLean County High School.....			10	0	0	20
Covington.....	High School.....	36	0				
Dry Ridge.....	do.....			11	19		
Elizabethtown.....	Hardin County High School.....			7	0	0	20
Ewing.....	Graded High School.....			20	0	0	18
Frankfort.....	High School.....					0	79
Greenville.....	do.....	20	0	15	0		
Hickman.....	do.....			8	12		
Hopkinsville.....	do.....	34	0				
La Grange.....	La Grange and Oldham County High School.....	9	0	14	14		
Louisville.....	Central High School (negro).....	62	0			0	125
Do.....	Girls' High School.....					0	500
Do.....	Male High School.....	160	0				
Owensboro.....	High School.....	67	0	30	0	0	98
Paducah.....	do.....	20	0				50
Providence.....	do.....					0	24
Richmond.....	High School (negro).....					0	44
LOUISIANA.							
Baton Rouge.....	High School.....	75	0			0	140
Cheneyville.....	do.....					0	29
De Ridder.....	do.....					0	47
Eros.....	do.....			11	0	0	21
Franklinton.....	do.....			26	0	0	40
Gibbsland.....	do.....					0	20
Homer.....	do.....			15	0	0	30
Jeanerette.....	do.....					0	27
Jena.....	do.....					0	65
Lake Arthur.....	do.....					0	29
Lutcher.....	do.....					0	43
Marksville.....	do.....			34	0		
Minden.....	do.....			16	0	0	31
Morgan City.....	do.....					0	42
New Orleans.....	Esplanade Avenue Girls' High School.....					0	60
Do.....	Sophie B. Wright High School (girls).....					0	290
St. Francisville.....	Julius Freyhan High School.....					0	20
St. Martinville.....	High School.....					0	36
Spring Hill.....	do.....	6	0			0	30
Verda.....	do.....			25	0	0	32
Winnfield.....	do.....	33	0			0	34

TABLE 1.—Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
MAINE.							
Auburn.....	Edward Little High School.....			27	13		
Bangor.....	High School.....	93	0				
Calais.....	Academy.....	40	0				
Portland.....	Deering High School.....	51	0			0	48
Do.....	High School.....	124	1			0	35
Rockland.....	do.....	26	0			0	26
South Portland (R. F. D. No. 6).....	Cape Elizabeth High School.....			12	17		
South Windham.....	Windham High School.....			20	0		
Turner Center.....	Leavitt Institute.....			20	1		
Westbrook.....	High School.....	36	0				
MARYLAND.							
Aberdeen.....	High School.....	13	0			0	26
Annapolis.....	do.....	39	0			0	101
Baltimore.....	High School (negro).....	17	73			0	421
Do.....	Western High School.....					0	476
Brookeville.....	High School.....			12	0	0	33
Brunswick.....	do.....	43	0			0	60
Centerville.....	do.....	39	0	17	0	0	75
Chestertown.....	do.....	43	0			0	75
Cumberland.....	Alligany County High School.....	86	0			0	117
Denton.....	Caroline County High School.....	30	0	2	5	0	55
Easton.....	High School.....	40	0			0	30
Elkton.....	Cecil County High School.....	40	0			0	53
Ellicott City.....	High School.....	33	0			0	53
Federalsburg.....	do.....			11	10	0	37
Frederick.....	Boys' High School.....	143	0	40	0		
Do.....	Girls' High School.....					0	142
Hagerstown.....	Washington County Female High School.....					0	196
Do.....	Washington County Male High School.....	179	0				
Havre de Grace.....	High School.....	36	0			0	45
Jarrettsville.....	do.....			16	4		
Laurel.....	do.....	23	0			0	30
Lonaconing.....	Central High School.....	38	0			0	77
Middletown.....	High School.....			22	0		
North East.....	do.....	15	0			0	23
Oakland.....	do.....	43	0			0	57
Pocomoke City.....	Pocomoke High School.....	41	0			0	91
Reisterstown.....	Franklin High School.....	77	0			0	73
Rock Hall.....	High School.....	18	0			0	27
Sandy Spring.....	Sherwood High School.....			26	0	0	27
Sharptown.....	High School.....	11	0	11	0	0	38
Snow Hill.....	do.....	32	0			0	46
Stockton.....	do.....	10	0			0	23
Towson.....	do.....	88	0			0	78
Westminster.....	do.....	30	0			0	57
Williamsport.....	do.....	20	0			0	39
MASSACHUSETTS.							
Amesbury.....	High School.....	74	0			0	108
Belmont.....	do.....	51	0			0	40
Beverly.....	do.....	185	0				
Boston.....	Dorchester High School.....	127	16			0	282
Do.....	East Boston High School.....	110	114				
Do.....	Hyde Park High School.....	28	0				
Brockton.....	High School.....	74	29			6	123
Cambridge.....	High and Latin School.....					0	34
Chicopee.....	High School.....	33	0				
Clinton.....	do.....	30	0				
Cohasset.....	do.....	29	0			0	22
Concord.....	do.....	41	0	23	0	0	43
Everett.....	do.....	143	0			0	73
Fitchburg.....	do.....	177	0				
Gardner.....	do.....	55	0				
Gloucester.....	do.....					0	42

TABLE 1.—Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
MASSACHUSETTS—continued.							
Greenfield.....	High School.....	44	0			0	24
Holden.....	do.....	24	0			0	31
Holyoke.....	do.....	180	0				
Lowell.....	do.....	162	0				
Lynn.....	English High School.....	216	0			0	305
Do.....	Evening High School.....	140	10			0	25
Nantucket.....	High School.....	22	17			0	33
North Attleboro.....	do.....	20	0			0	20
Peabody.....	do.....	37	1				
Quincy.....	do.....	113	0	94	0	0	90
Salem.....	Classical and High School.....	89	0				
Somerville.....	High School.....	75	0				
Stow.....	Hale High School.....					0	25
Swampscott.....	High School.....	79	0				
Waltham.....	do.....	115	0			0	48
Winthrop.....	do.....	68	0			0	40
Worcester.....	Classical High School.....	81	0				
Do.....	English High School.....	94	0				
Do.....	South High School.....	88	0				
MICHIGAN.							
Adrian.....	High School.....	50	0	5	5	0	50
Ann Arbor.....	do.....					0	79
Bancroft.....	do.....			10	11		
Bangor.....	do.....	50	0	50	35	0	12
Battle Creek.....	do.....	15	0			0	100
Bay City.....	Eastern High School.....	76	0	22	0	0	31
Do.....	Western High School.....	50	0	9	0	0	30
Big Rapids.....	Central High School.....	20	0			0	20
Brown City.....	High School.....			12	10		
Calumet.....	do.....	189	0			0	222
Cassopolis.....	do.....			40	1		
Charlotte.....	do.....			24	8		
Clarksville.....	do.....			10	21		
Croswell.....	do.....			14	16		
Crystal Falls.....	do.....	25	0			0	45
Detroit.....	Eastern High School.....	559	88			0	596
Dowagiac.....	High School.....			10	0	0	20
East Jordan.....	do.....			18	22		
East Tawas.....	do.....	16	4				
Eaton Rapids.....	do.....	11	2			0	27
Ewart.....	do.....			11	46		
Fennville.....	do.....			35	46		
Fife Lake.....	do.....	11	0	11	20	0	20
Flushing.....	do.....			18	2		
Grand Rapids.....	Union High School.....	63	0			0	41
Hart.....	High School.....			21	19		
Iron Mountain.....	do.....	37	0			0	77
Iron River.....	do.....	23	0			0	34
Ironwood.....	Luther L. Wright High School.....	136	0			0	225
Ishpeming.....	High School.....	50	0			0	54
Kingsley.....	do.....			10	17		
Ludington.....	do.....	25	0	9	0	0	25
Manistee.....	do.....	12	0	20	0	0	25
Marquette.....	Howard High School.....	60	0			0	70
Monroe.....	High School.....	10	0	7	0	0	33
Montgomery.....	do.....	12	0	4	0	0	22
Negaunee.....	do.....	56	0			0	50
Niles.....	do.....	12	0			0	44
North Adams.....	do.....			28	0	0	8
Norway.....	do.....	47	0				
Otsego.....	do.....			23	0		
Painesdale.....	Adams Township High School.....	42	6			3	63
Portland.....	High School.....			20	14	0	16
Quincy.....	do.....			20	5		
Saginaw.....	East Side High School.....	65	0	7	0	0	125
Saginaw West Side.....	Arthur Hill High School.....	22	0			0	35

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
MICHIGAN—contd.							
South Haven.....	High School.....	25	0	5	0	0	15
Stambaugh.....	do.....	27	0			0	45
Tustin.....	do.....			19	35		
Union City.....	do.....			20	10		
Vicksburg.....	do.....	18	0			0	24
Wakefield.....	Wakefield Township High School.....	33	0			0	37
Watervliet.....	High School.....			22	18		
MINNESOTA.							
Ada.....	High School.....			25	0	0	54
Albert Lea.....	do.....	50	0	31	0	0	25
Annandale.....	do.....			30	0	0	35
Argyle.....	do.....	17	0	17	0	0	44
Austin.....	Franklin High School.....	75	0	30	30	0	112
Bagley.....	High School.....	14	0	15	28	0	30
Beardsley.....	do.....			15	0	0	20
Blue Earth.....	do.....	77	0	77	26	0	90
Brainerd.....	do.....					0	80
Breckenridge.....	do.....	19	0	22	12	0	18
Buffalo.....	do.....			36	41	6	63
Cambridge.....	do.....	23	0			0	32
Canby.....	do.....	30	0	20	0	0	50
Chatfield.....	do.....			24	0	0	37
Chisholm.....	do.....	23	0			0	31
Clinton.....	do.....	19	0	5	4	0	22
Cloquet.....	Lincoln High School.....	40	0	39	28	0	58
Cokato.....	High School.....	35	0	8	0	0	81
Cottonwood.....	do.....					0	24
Dassel.....	do.....	20	11	19	11	0	24
Deer River.....	do.....	12	0			1	31
Detroit.....	do.....	30	0	37	43	0	50
Dodge Center.....	do.....	34	0	23	0	0	20
Duluth.....	Central High School.....	225	0				
East Grand Forks.....	High School.....	30	10	20	0	0	43
Elk River.....	do.....			7	4	0	28
Fairfax.....	do.....	10	0			0	26
Fairmont.....	do.....	31	0			2	40
Faribault.....	do.....	42	0				
Fergus Falls.....	do.....			20	8		
Gilbert.....	do.....	20	0			0	20
Glenwood.....	do.....	20	1			0	
Grand Rapids.....	do.....	25	0			0	20
Granite Falls.....	do.....	25	8	16	8	0	39
Harmony.....	do.....	15	0	22	13	0	23
Hastings.....	do.....	20	0	14	0	0	40
Hinckley.....	do.....	20	0			1	20
Jackson.....	do.....	10	0	20	0	0	18
Lake City.....	do.....	42	0	16	0	0	60
Lakefield.....	do.....	14	0	13	0	0	26
Lake Park.....	do.....	28	0			0	27
Lanesboro.....	do.....	12	1	14	6	0	31
Le Sueur.....	do.....	18	0			0	30
Litchfield.....	do.....	30	0	10	12	0	35
McIntosh.....	Agricultural High School.....	30	0	36	0	0	35
Mankato.....	High School.....	30	0	40	0	0	50
Mantorville.....	Associated Industrial High School.....	18	3	17	0	0	37
Mazeppa.....	High School.....	18	0	18	0	0	26
Melrose.....	do.....			12	0	0	24
Milaca.....	do.....	60	0	30	8	0	113
Minneapolis.....	Central High School.....	418	0			0	409
Do.....	East High School.....	261	2			0	62
Do.....	North High School.....	245	3			0	92
Do.....	South High School.....	265	0			0	51
Do.....	West High School.....	221	0			0	212
Montgomery.....	Sherman High School.....	10	0	15	9	0	35
Monticello.....	High School.....	15	0			1	56

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
MINNESOTA—contd.							
Northfield.....	High School.....			30	14		
Norwood.....	Young America High School.....	22	0	27	3	4	38
Olivia.....	High School.....			32	0	9	37
Owatonna.....	do.....			24	0		
Park Rapids.....	do.....	17	0	6	0	0	45
Paynesville.....	do.....	20	0				
Perham.....	do.....	11	0			0	29
Plainview.....	do.....			21	0	0	37
Red Lake Falls.....	do.....	14	0	14	15	0	41
Redwood Falls.....	do.....	52	0	65	26	0	122
Renville.....	do.....	38	0	38	49	0	49
Royalton.....	do.....	12	5			0	25
Rush City.....	do.....	28	0	15	11	0	25
St. James.....	do.....	43	0	56	0	0	59
St. Paul.....	Central High School.....	199	2			0	10
Do.....	Humboldt High School.....	48	0			0	30
Do.....	Johnson High School.....	60	0			0	24
Shakopee.....	High School.....	20	13	15	10	0	53
Sherburn.....	do.....	13	0	6	14		
Slayton.....	do.....	26	1	39	15	0	37
Spring Grove.....	do.....	9	0			0	34
Spring Valley.....	do.....	35	0	20	0	0	30
Stephen.....	do.....	14	0	19	0	0	27
Stewart.....	Columbia High School.....			11	0	0	28
Stillwater.....	High School.....	68	0			0	106
Thief River Falls.....	do.....	30	0	20	0	0	60
Tracy.....	do.....	33	0	24	12	0	19
Two Harbors.....	do.....	16	0	10	13	0	60
Wabasha.....	do.....	32	0			0	34
Walker.....	do.....	17	0			0	22
Warren.....	do.....	15	0	16	16	0	28
Wells.....	do.....	10	0	25	0	0	26
Willmar.....	do.....	27	0	19	0	0	55
Windom.....	do.....	28	0	50	32		
Winnebago City.....	do.....	31	0	44	5	0	41
Winona.....	do.....	80	0			0	60
Winthrop.....	Lincoln High School.....			33	0	0	54
MISSISSIPPI.							
Columbus.....	Franklin High School.....	30	0			0	50
Houston.....	High School.....			28	32	0	18
Jackson.....	Central High School.....					0	87
Kosciusko.....	High School.....			50	50		
Louisville.....	do.....	30	0			0	45
McComb.....	do.....	15	0	10	0	0	20
Meridian.....	do.....	106	0	26	39	0	90
Tylertown.....	do.....			9	18		
Yazoo City.....	do.....	70	0			0	60
MISSOURI.							
Albany.....	High School.....			10	19		
Appleton City.....	do.....			11	10		
Arrow Rock.....	do.....			18	2		
Ash Grove.....	do.....	16	0	13	4	0	32
Atlanta.....	do.....			6	14		
Bakersfield.....	do.....			9	14		
Bethany.....	do.....			51	30		
Bolivar.....	do.....			10	12		
Bunceton.....	do.....			15	16		
Burlington Junction.....	do.....			19	16		
California.....	do.....			16	15		
Center.....	do.....			11	9		
Charleston.....	do.....			12	10		
Chillicothe.....	Central High School.....	24	0	32	30	0	40
Coffey.....	High School.....			10	15		
Dixon.....	do.....			12	10		

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
MISSOURI—contd.							
Doe Run.....	High School.....			7	21		
Edgerton.....	do.....			7	13		
Excelsior Springs.....	do.....	37	0			0	40
Farmington.....	do.....	30	0				
Flat River.....	do.....			10	18	0	24
Fredericktown.....	do.....	28	0	18	12	0	38
Golden City.....	do.....			10	10		
Granger.....	do.....			12	14		
Higginsville.....	do.....			16	7		
Holden.....	do.....			13	28		
Independence.....	Central High School.....	60	6	12	24		
Jarico Springs.....	High School.....			10	15		
Joplin.....	do.....	125	0	25	25	0	130
Kansas City.....	Central High School.....	297	14	10	8	0	305
Do.....	Lincoln High School.....	112	0			0	203
Do.....	Northeast High School.....	33	0			0	62
Do.....	Westport High School.....	374	0			0	409
King City.....	High School.....			6	15		
Kirkwood.....	do.....	42	0			0	30
Lebanon.....	do.....			9	18		
Lexington.....	do.....			4	16	0	20
Lindlow.....	do.....			11	9		
Maitland.....	do.....			19	27		
Marionville.....	do.....			12	12		
Mexico.....	McMillan High School.....	8	0	20	16	0	15
Monett.....	High School.....			8	14		
Moundville.....	do.....			15	15		
New Madrid.....	do.....			12	10		
Norwood.....	do.....			11	10		
Orick.....	do.....			29	0	0	29
Paris.....	do.....	27	0	1	14	0	29
Perry.....	do.....			15	5		
Perryville.....	do.....			15	10		
Piedmont.....	do.....			12	8		
Plattsburg.....	do.....			15	21		
Poplar Bluff.....	do.....	48	0	14	7	0	64
Prairie Hill.....	do.....			23	16		
Richland.....	do.....			8	16		
Sta. Genevieve.....	do.....			14	9		
St. Joseph.....	Bartlett High School (negro).....	41	0			0	59
Do.....	Central High School.....	29	0			0	202
St. Louis.....	do.....	284	0			0	259
Do.....	Frank Louis Soldan High School.....	207	0			0	251
Do.....	McKinley High School.....	332	0			0	282
Do.....	Sumner High School (negro).....	131	9			0	145
Do.....	Yeastman High School.....	215	0			0	150
Beymour.....	High School.....			9	13		
Sheldon.....	do.....			10	12		
Slater.....	do.....			7	16		
Springfield.....	Lincoln High School (negro).....	20	0	0	2	0	28
Thayer.....	High School.....			40	20		
Unionville.....	do.....			15	5		
Urich.....	do.....			13	12		
Verona.....	do.....			13	11		
Walnut Grove.....	do.....			18	22		
Washburn.....	do.....			12	10		
West Plains.....	do.....			14	9		
MONTANA.							
Bigtimber.....	Sweet Grass County High School.....					0	34
Billings.....	High School.....	54	0			0	40
Butte.....	do.....	87	0			0	92
Dillon.....	Beaverhead County High School.....			16	0	0	27
Kalispell.....	Flathead County High School.....	26	0	11	0	0	47
Lewistown.....	Fergus County High School.....	35	0			0	93
Miles City.....	Custer County High School.....	30	0			0	30

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
NEBRASKA.							
Alliance.....	High School.....	23	0	23	0	0	26
Bancroft.....	do.....	20	4	25	28	0	25
Blue Hill.....	do.....					0	35
Cambridge.....	do.....	10	0			0	30
Columbus.....	do.....	27	0	34	40	0	38
Creighton.....	do.....			18	18		
Dorchester.....	do.....			4	16		
Edgar.....	do.....	32	0			0	37
Fairbury.....	do.....	29	0	43	60	0	40
Falls City.....	do.....	36	0	14	0	0	16
German town.....	do.....			13	17		
Gothenburg.....	do.....			24	13		
Greeley.....	do.....			12	11		
Gretna.....	do.....			12	13		
Hooper.....	do.....	15	11	8	13		
Kearney.....	do.....	17	5	2	9	0	12
Kimball.....	Kimball County High School.....			13	10	0	10
Lawrence.....	High School.....			8	15	0	21
Minden.....	do.....	30	0			0	32
Morrill.....	do.....			14	9		
Nebraska City.....	do.....	24	0				
Nelson.....	do.....	25	0	11	11	0	30
Oakland.....	do.....	21	0	11	7		
Omaha.....	do.....	240	0			0	120
Red Cloud.....	do.....	26	0			0	15
St. Paul.....	do.....	16	0	6	2	0	22
Scottsbluff.....	do.....	56	0			0	57
South Omaha.....	do.....	50	0	8	0	0	50
Stanton.....	do.....	20	0			0	46
Superior.....	do.....	20	0	16	3	0	38
Tecumseh.....	do.....			30	0	0	33
Tekamah.....	do.....	21	0	22	40	0	35
Valley.....	do.....			8	12	0	44
Wakefield.....	do.....	14	0			0	20
Wayne.....	do.....	20	3			0	20
Wilber.....	do.....	50	0			0	63
NEW HAMPSHIRE.							
Concord.....	High School.....	218	0			0	133
Dover.....	do.....	61	0			0	56
Franklin.....	do.....	33	0				
Lancaster.....	Academy and High School.....					0	30
Nashua.....	High School.....	48	0			0	20
Newport.....	do.....					0	30
Portsmouth.....	do.....	22	0				
NEW JERSEY.							
Atlantic City.....	High School.....	10	0			0	62
Bayonne.....	do.....	127	0			0	44
Clifton.....	do.....	21	7				
Freehold.....	do.....			64	16		
Hoboken.....	do.....	57	2				
Jersey City.....	William L. Dickinson High School.....	325	0			0	247
Millville.....	High School.....	22	0			0	32
Newark.....	Central Commercial and Manual Training High School.....	214	44				
Do.....	East Side Commercial and Manual Training High School.....	79	0			0	24
Passaic.....	High School.....	106	0			0	173
Paterson.....	do.....	319	0			0	30
Perth Amboy.....	do.....	20	0			0	133
Rahway.....	do.....	117	62			0	113
Red Bank.....	do.....	58	1			0	72
Ridgely Park.....	do.....	30	0			0	15
Somerville.....	do.....			4	36		
West Orange.....	do.....	14	6				
Woodbury.....	do.....					0	35

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
NEW MEXICO.							
Alamogordo.....	Otero County High School.....	8	4	14	18	0	16
Deming.....	High School.....	45	0			0	55
Roswell.....	do.....					0	41
Socorro.....	do.....	20	0	20	12	0	12
NEW YORK.							
Albion.....	High School.....			23	12		
Auburn.....	Academic High School.....	25	0			0	20
Batavia.....	High School.....			11	14		
Binghamton.....	Central High School.....	102	5				
Brooklyn.....	Bushwick High School.....	174	0				
Carthage.....	High School.....					0	30
Corning.....	North Side High School.....	29	0			0	32
Dunkirk.....	High School.....	35	0			0	40
East Syracuse.....	do.....					0	35
Elmira.....	Free Academy.....	30	0			0	82
Fayetteville.....	High School.....					0	30
Freeville.....	Hunt Memorial School.....	30	0	5	0	0	7
Gloversville.....	High School.....	18	0			0	23
Granville.....	do.....					1	22
Greenville.....	do.....			10	0		20
Hamburg.....	do.....			27	0		
Liberty.....	do.....			21	0		
Little Valley.....	do.....			20	0		
Long Island City.....	Bryant High School.....	289	0			0	493
Lowville.....	Academy.....			25	0	0	30
Moravia.....	High School.....			14	7		
Mount Vernon.....	do.....	19	0			0	25
New Rochelle.....	do.....					8	52
New York.....	Wadleigh High School.....					0	274
Do.....	Washington Irving High School.....	0	3,163			0	1,094
Niagara Falls.....	High School.....	123	20			0	75
Olean.....	do.....	180	0			0	230
Penn Yan.....	Academy.....			30	0	0	20
Port Chester.....	High School.....	58	0				
Poughkeepsie.....	do.....					0	75
Pulaski.....	Academy.....			31	0		
Schenectady.....	High School.....	49	0			0	236
Spencer.....	do.....			20	0		
Springville.....	Griffith Institute.....					0	35
Syracuse.....	North High School.....	52	0			0	79
Walton.....	High School.....	25	4	11	0	0	15
NORTH CAROLINA.							
Charlotte.....	High School.....					0	223
Colerain.....	do.....			10	11		
East Durham.....	do.....					0	58
High Point.....	do.....					0	80
Holly Springs.....	do.....			23	0	0	17
Jamestown.....	do.....			22	0	0	26
Marion.....	do.....					0	25
Nebo.....	do.....			14	0	0	20
Raleigh.....	do.....					0	91
Washington.....	do.....	43	0				
Wilmington.....	do.....					0	176
Zebulon (R. F. D.).....	Wakelon High School.....			16	0	0	30
NORTH DAKOTA.							
Aneta.....	High School.....	24	4			0	16
Berthold.....	do.....					0	22
Bottineau.....	do.....	14	6	4	0	2	12
Denbigh.....	Graded School.....	6	0	10	10	0	6
Grafton.....	High School.....	28	0	39	0	0	31
Hettinger.....	do.....	20	0			0	7
Hillsboro.....	do.....	16	0			0	21
Hope.....	do.....	19	5			0	18
Jamestown.....	do.....	6	0			0	44

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
NORTH DAKOTA—continued.							
Kenmare	High School	15	1			0	40
Minto	do.	24	0	4	3	0	30
Valley City	do.	45	0	5	4	0	34
Williston	Central High School	23	0			0	25
OHIO.							
Akron	Central High School	132	0			0	68
Do.	South High School	116	0			0	94
Ashtabula	Harbor High School	20	0				
Aurora	High School			10	10		
Avon	do.			8	12		
Barberton	Lincoln High School	60	0			0	107
Bellaire	High School	65	0			0	86
Buford	do.			8	12		
Byesville	do.					0	24
Cambridge	Brown High School					0	35
Canal Winchester	High School			12	10		
Celina	do.	87	0	12	10	0	62
Cincinnati	Hughes High School	285	0			0	346
Do.	Walnut Hills High School					0	140
Do.	Woodward High School	363	0			0	431
Cleveland	Lincoln High School	60	0				
Commercial Point	Scioto Township High School			20	22		
Conneaut	High School	65	0			0	67
Coshocton	do.	25	0	12	0	0	6
Dayton	Steele High School			16	15	0	104
Dillonvale	High School			16	18		
Dunkirk	do.						
Elyria	do.	88	0			29	87
Fostoria	do.	99	0			0	96
Galion	do.	71	0				
Greenville	do.	80	0			0	76
Hamilton	do.	127	0	30	22	0	186
Hamlet	do.			12	11		
Kent	do.			25	21		
Lakewood	do.	82	0				
Lima	do.	108	0			0	104
Lockland	do.	25	0	16	32	0	44
Logan	do.			14	9	0	
Marengo	do.			14	8		
Mount Vernon	do.	27	1			0	46
Nashport	Licking Township High School			11	17		
New Bremen	High School	14	0			0	23
New Milford (R. F. D.)	Edinburg Township High School			16	13		
Niles	High School	65	0	22	0	0	75
Norwalk	do.	28	0	1	15	0	25
Ottoville	do.			10	10		
Oxford	do.	25	0			0	35
Sabina	do.			35	53		
Shawnee	do.			18	10		
Shelby	do.	65	0			0	76
Springfield	Central High School	68	0			0	438
Triffin	Columbian High School	79	0			0	115
Tippecanoe City	High School	15	0	12	21		
Toledo	East Side High School	10	0			0	22
Wheelerburg	High School			12	8		
Willoughby	do.	5	0	14	10		
Wilmington (R. F. D. No. 3)	Chester Township High School			21	0	0	17
Wooster	High School			28	0		
Youngstown	South High School	76	0			0	96
OKLAHOMA.							
Arapaho	High School			25	0	0	20
Ardmore	do.	47	7			0	36
Blackwell	do.	24	0			0	23

TABLE 1.—Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
OKLAHOMA—contd.							
Chelsea	High School	7	0			0	22
Claremore	Eastern University Preparatory School	15	0	5	0	0	22
Clinton	High School	27	0			0	61
Comanche	do.	28	0			0	37
Hickory	do.			13	11	0	11
Holdenville	do.			16	8	10	25
Kiefer	do.			14	6	7	19
Lawton	do.	65	0			0	108
Lehigh	do.			12	16	0	18
Mangum	do.	26	0			0	28
Marlow	do.					0	30
Marshall	do.			17	0	0	30
Minakogee	Central High School	35	0	10	0	6	77
Norman	High School	40	0			3	62
Nowata	do.					0	44
Oklahoma	Douglas High School (negro)	35	0			0	68
Do	High School	250	3			0	610
Pawhuska	do.					0	32
Ryan	do.			14	16		
Sapulpa	do.	25	0			0	30
Shawnee	do.	22	0			0	29
OREGON							
Astoria	High School	32	0			0	25
Bandon	do.					0	20
Burns	Harney County High School			21	0	0	27
Clatskanie	High School	20	0			0	18
Corvallis	do.	60	0			0	65
Cottage Grove	do.					0	60
Dallas	do.					0	40
Eugene	do.	81	0			24	180
Forest Grove	do.	20	0			0	50
Grants Pass	do.	42	0			0	44
Hood River	do.	30	10	12	8	5	75
Klamath Falls	Klamath County High School	30	0	18	0	0	60
La Grande	High School	30	0			0	21
Marshfield	do.	12	0			15	60
Newberg	do.			14	16	0	30
North Bend	do.					0	44
Oregon City	do.	26	0				
Pendleton	do.	13	0	25	0	0	31
Portland	Jefferson High School	103	0			0	127
Do	Lincoln High School	8	1			0	153
Do	Washington High School	146	0			0	185
Solo	High School					0	23
Springfield	do.	20	0			0	20
The Dalles	do.	40	0			0	50
Union	do.	16	0	5	0	0	30
Woodburn	do.	16	0			0	31
PENNSYLVANIA.							
Altoona	High School	277	0				
Athens	do.	34	0			0	60
Beaver Falls	do.	40	0			0	30
Bellefonte	do.	95	0	10	0	0	
Bethel	do.			15	9		
Bethlehem	do.	84	0				
Blooming Glen	Hilltown Township High School			23	11		
Buckingham	High School			7	15		
Corry	do.	45	0			0	50
Easton	do.	75	0			0	80
Erie	Manual Training School	80	0				
Gettysburg	High School	42	0			0	74
Hershey	do.			12	9	4	11
Homestead	do.	80	0			0	80
Honesdale	do.			20	0		
Muncie	do.			14	22	0	16

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
PENNSYLVANIA—continued.							
Jamison City (R. F. D. No. 1).	Sugarloaf Township High School			19	27		
Johnstown.	High School.	59	0				
Kane.	do.	83	0			0	74
Kittanning.	do.	44	0			0	38
Lebanon.	do.	31	0			0	29
Loganton.	do.			16	14		
Mercer.	do.			23	0		
Mount Jewett.	do.			8	12		
Mount Pleasant.	Borough High School.	64	0			0	78
Nesquehoning.	Mauch Chunk Township High School.	30	0			0	30
Norristown.	High School.	78	0				
Oakmont.	do.	40	0			0	67
Philadelphia.	Central High School.	201	0				
Do.	Southern High School.	373	0				
Do.	William Penn High School for Girls.					0	197
Pittsburgh.	Allegheny High School.	134	0			0	88
Do.	South High School.	43	0			0	20
Princeton.	High School.			12	13		
Reading.	Evening High School.	160	0				
Do.	High School for Boys.	125	0				
Do.	High School for Girls.					0	215
Roaring Spring.	High School.			27	27		
Salina.	Bell Township High School.			11	11		
Scottsdale.	High School.	100	0			0	123
Sharon.	do.	122	0			0	160
Sheffield.	do.	30	0			0	18
Souderton.	do.					0	37
Swissvale.	Edgewood High School.	41	0			0	35
Tidoute.	Hunter Memorial High School.	15	0			0	35
Turtle Creek.	Union High School.					0	114
Tyrone.	High School.	80	0			0	98
Washington.	do.	144	0			0	130
Waterford.	Borough and Township High School.			20	0		
Wayne.	Radnor High School.	34	0			0	20
Wilkes-Barre.	High School.	335	0			0	151
Wilkes-Barre (R. F. D. No. 1).	Hanover Township High School.	33	0				
Williamsport.	High School.	20	0				
York.	do.	142	0				
RHODE ISLAND.							
Newport.	Rogers High School.	24	0			0	41
Westerly.	High School.	34	0				
Woonsocket.	do.	60	0				
SOUTH CAROLINA.							
Beaufort.	High School (negro).			5	10	0	22
Charleston.	Memminger High and Normal School.					0	48
Columbia.	High School.	113	0			0	201
Do.	Howard High School (negro).	33	0			0	111
Dillon.	High School.	34	0	34	35	0	35
Latta.	do.	4	0	9	2	0	33
Leesville (R. F. D. No. 7).	Delmar Collegiate Institute.			15	10		
Marion.	High School.	58	0			0	65
Rome.	Union High School.			17	18	0	2
Sumter.	Lincoln Graded School (negro).	39	0			0	79
SOUTH DAKOTA.							
Aberdeen.	Central High School.	52	0			0	73
Brookings.	High School.	27	0			0	2
Deadwood.	do.	30	0			0	53

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
SOUTH DAKOTA—continued.							
Lake Preston.....	High School.....	10	9	.....	.....	0	25
Milbank.....	do.....	.....	.....	.....	.....	0	20
Parker.....	do.....	38	0	.....	.....	.....	.....
Sioux Falls.....	Washington High School.....	34	0	.....	.....	.....	.....
Vermillion.....	High School.....	.....	.....	.....	.....	0	40
Yankton.....	do.....	28	0	.....	.....	.....	.....
TENNESSEE.							
Athens.....	McMinn County High School.....	.....	.....	14	0	0	22
Benton.....	Polk County High School.....	.....	.....	14	0	0	30
Blountville (R. F. D. No. 2).....	Holston Institute and High School.....	.....	.....	14	16	.....	.....
Carthage.....	High School.....	.....	.....	21	0	0	26
Chattanooga.....	Central High School of Hamilton County.....	58	0	.....	.....	0	35
Do.....	Howard High School (negro).....	.....	.....	.....	.....	0	70
Chuckey.....	High School.....	.....	.....	15	0	0	23
Clinton.....	do.....	20	0	.....	.....	.....	.....
Columbia.....	Central High School.....	34	0	15	5	0	49
Concord (R. F. D. No. 1).....	Farragut High School.....	.....	.....	41	33	0	33
Corrington (R. F. D. No. 1).....	Gibbs High School.....	12	0	23	42	0	20
Covington.....	Byars-Hall High School.....	.....	.....	32	0	0	24
Crossville.....	Cumberland County High School.....	.....	.....	5	0	0	20
Dandridge.....	Maury High School.....	.....	.....	.....	.....	4	24
Dyersburg.....	High School.....	.....	.....	.....	.....	0	20
Elizabethton.....	do.....	.....	.....	3	18	0	16
Fayetteville.....	Lincoln County High School.....	.....	.....	30	0	1	40
Fountain City.....	Knox County Central High School.....	55	0	.....	.....	0	117
Hixson.....	High School.....	.....	.....	43	0	0	45
Jackson.....	do.....	.....	.....	.....	.....	0	120
Jasper.....	Marion County High School.....	.....	.....	38	1	1	46
Jellico.....	High School.....	.....	.....	12	0	0	26
Jonesboro (R. F. D. No. 9).....	Sulphur Springs High School.....	.....	.....	8	0	0	20
Knoxville.....	Austin High School (negro).....	31	0	.....	.....	0	66
Do.....	High School.....	25	0	.....	.....	.....	.....
Knoxville (R. F. D. No. 13).....	Young High School.....	27	0	.....	.....	0	70
Lawrenceburg.....	Lawrence County High School.....	.....	.....	21	0	0	39
Lewisburg.....	High School.....	.....	.....	30	0	0	50
Lexington.....	Henderson County High School.....	.....	.....	54	0	0	53
Liberty.....	Liberty County High School.....	.....	.....	.....	.....	0	30
Lynnville.....	Robert Jones High School.....	.....	.....	25	0	0	30
Memphis.....	Central High School.....	60	0	.....	.....	0	217
Mercer.....	High School.....	.....	.....	5	0	0	20
Mosheim.....	do.....	.....	.....	32	0	0	23
Nashville.....	Hume-Fogg High School.....	115	0	12	0	0	240
Paris.....	E. W. Grove-Henry County High School.....	.....	.....	64	0	0	85
Pinson.....	High School.....	.....	.....	25	0	0	54
Sale Creek.....	do.....	.....	.....	27	0	0	38
Spring City.....	do.....	.....	.....	9	11	.....	.....
Sweetwater.....	Monroe County High School.....	.....	.....	9	0	0	20
Tazewell.....	Claborn County High School.....	.....	.....	14	1	0	31
Tyner.....	Hamilton County High School.....	.....	.....	31	0	0	27
Union City.....	High School.....	.....	.....	.....	.....	0	32
TEXAS.							
Alvarado.....	High School.....	.....	.....	15	14	.....	.....
Asherton.....	do.....	.....	.....	14	17	.....	.....
Aubrey.....	do.....	.....	.....	10	12	.....	.....
Austin.....	do.....	167	1	.....	.....	1	312
Bay City.....	do.....	35	0	.....	.....	0	35
Beaumont.....	do.....	68	0	.....	.....	0	162
Do.....	South Park High School.....	22	0	22	0	0	9

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
TEXAS—continued.							
Belton.....	West Belton High School (negro)			15	30		
Bonham.....	High School.....	63	0	7	0	0	98
Bryan.....	do.....	50	0				
Childress.....	do.....	20	0			0	30
Cleburne.....	do.....			18	0	0	64
Coleman.....	do.....					0	37
Comanche.....	do.....					3	32
Conroe.....	do.....	21	0			0	20
Cookville.....	do.....			15	12		
Cooper.....	do.....	27	0			0	25
Corpus Christi.....	do.....					0	40
Corsicana.....	do.....					0	50
Cuero.....	do.....	30	0				
Dallas.....	do.....	246	0	46	83	0	397
Do.....	High School (negro).....	80	0			0	152
Do.....	Oak Cliff High School.....	70	2			0	175
Denton.....	High School.....			30	0	0	124
Dublin (R. F. D. No. 8).....	Purves High School.....			14	9		
El Paso.....	Douglass High School (negro).....	5	0			0	23
Fort Worth.....	High School.....	125	0			0	161
Do.....	High School (negro).....	65	0	65	0	0	69
Franklin.....	High School.....			8	16		
Gainesville.....	do.....					0	60
Galveston.....	Ball High School.....	117	0			0	167
Do.....	Central High School (negro).....	30	0			0	52
Garrison.....	High School.....			15	0	0	20
Gatesville.....	do.....			12	18	0	3
Godley.....	do.....			12	17		
Greenville.....	do.....	50	0			0	75
Hallettsville.....	do.....	20	0				
Honey Grove.....	do.....	33	0			0	40
Houston.....	do.....	218	0			0	413
Do.....	High School (negro).....	106	0			0	178
Houston Heights.....	High School.....	36	7			0	69
Huntsville (R. F. D. No. 1).....	Houston Industrial and Training School (negro).....	24	2	24	14	0	54
Indian Gap.....	High School.....			11	14		
Jacksonville.....	do.....					0	21
Jefferson.....	do.....					0	26
Kaufman.....	do.....					0	35
Krum.....	do.....			19	11		
Lewisville.....	do.....			10	12		
Lindale.....	do.....			15	0	0	35
Lufkin.....	do.....	30	0			0	20
McGregor.....	do.....			16	18	0	14
McKinney.....	do.....	57	0			0	71
Marlin.....	do.....	15	0	26	5	0	60
Marshall.....	Central High School (negro).....	40	5	30	10	0	95
Do.....	High School.....	37	0	19	11	0	70
Merit.....	do.....			16	11		
Miles.....	do.....			20	9		
Mullin.....	do.....			13	9		
Navasota.....	do.....	14	0			0	30
Paris.....	Gibbons High School (negro).....					0	44
Do.....	High School.....	140	0			0	176
Ponder.....	Agricultural High School.....			10	13		
Poolville.....	High School.....			16	18		
Rochelle.....	do.....			37	42		
San Angelo.....	do.....	40	0			0	35
San Marcos.....	do.....	39	0			0	62
Stamford.....	do.....			20	0	0	17
Sweetwater.....	do.....	50	0			0	58
Taylor.....	do.....	38	0				
Texarkana.....	do.....	25	8	16	0	0	45
Van Alstyne.....	do.....	36	0	36	0	0	40
Victoria.....	High School (negro).....	10	0			0	33
Waco.....	A. J. Moore High School (negro).....	27	0			0	50
Do.....	High School.....	100	0			0	175
Waxler.....	do.....			14	15		
Walnut Springs.....	do.....			22	30		
Winnboro.....	do.....	20	0	21	20	0	33

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
UTAH.							
American Fork.....	High School.....	16	0	27	0	0	28
Eureka.....	Tintic High School.....	26	0			0	11
Kamas.....	South Summit High School.....			22	0	0	27
Mantol.....	South Saupete High School.....	46	0	50	0		37
Monroe.....	High School.....			33	0	0	
Morgan.....	do.....	18	0	15	0	0	24
Moroni.....	do.....			37	0	0	43
Nephel.....	do.....	18	0	30	0	0	45
Ogden.....	do.....	53	90	35	25	0	139
Park City.....	do.....					0	40
Price.....	Carbon County High School.....	28	0	18	0	0	36
Provo.....	High School.....			41	0		
Richfield.....	Sevier High School.....			55	0	0	75
Rosevelt.....	Wasatch High School (No. 2).....			36	0	0	38
Salina.....	Sevier High School.....			22	0	0	29
Salt Lake City.....	Salt Lake High School.....	148	0			0	123
Sandy (R. F. D. No. 2).....	Jordan High School.....			128	0	0	123
Spanish Fork.....	High School.....	60	0	60	0	0	60
Tooele.....	do.....	24	0			0	28
VERMONT.							
Burlington.....	High School.....	112	0			0	91
Essex Junction.....	do.....					0	33
Rutland.....	do.....	20	0			0	85
Springfield.....	do.....	21	0			0	60
Vergennes.....	do.....			26	0		
VIRGINIA.							
Charlottesville.....	High School.....			10	10		
Chatham (R. F. D. No. 3).....	Climax High School.....			11	11		
Lincoln.....	High School.....			20	10		
Moneta.....	do.....			14	15		
Norfolk.....	Matthew Fontaine Maury High School.....	140	0			0	104
Petersburg.....	High School.....	8	0			0	24
Portsmouth.....	do.....					0	122
Remington.....	do.....			11	15		
Richmond.....	Armstrong High School (negro).....					0	102
Do.....	John Marshall High School.....	67	0			0	86
Rosnoke.....	High School.....	37	0			0	88
Shenandoah.....	do.....			13	22		
Staunton.....	do.....						85
Suffolk.....	Jefferson High School.....					0	95
Turbeville.....	Agricultural High School.....	6	0	6	0	0	26
WASHINGTON.							
Arlington.....	High School.....	20	0	12	9	0	18
Auburn.....	do.....	35	0			0	18
Bellingham.....	Whatcom High School.....	58	0			0	65
Burlington.....	High School.....	25	0	8	3	0	36
Chewelah.....	Jenkins High School.....	9	0			0	37
Colfax.....	High School.....	16	0			0	24
Davenport.....	do.....	35	0			0	30
Deer Park.....	do.....	18	1			1	25
Ellensburg.....	do.....	17	0	4	0	0	36
Elma.....	do.....	17	0			0	28
Enumclaw.....	Union High School.....	22	0	2	0	0	50
Everett.....	High School.....	103	0			0	97
Goldendale.....	do.....	12	0			0	27
Kennewick.....	do.....	17	0	19	0	0	23
Kelso.....	do.....	20	0			0	16
Kirkland.....	do.....	20	0	21	0	0	19
Leavenworth.....	Union High School.....	14	1			0	24
North Yakima.....	High School.....	45	1			0	30
Palouse.....	do.....	35	0			0	40

TABLE 1.—Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
WASHINGTON—CON.							
Pomeroy.....	High School.....	51	0			0	54
Port Townsend.....	do.....	12	0			0	20
Pullman.....	do.....	23	4			0	30
Renton.....	do.....	23	6	4	1	0	24
Ritzville.....	do.....	17	4	7		0	24
Rosalia.....	do.....	33	0		3	0	47
Seattle.....	Ballard High School.....	24	0			0	85
Do.....	Broadway High School.....	179	0			0	289
Do.....	Franklin High School.....	91	0			0	151
Do.....	Lincoln High School.....	88	106			77	153
Do.....	Queen Anne High School.....	111	99			0	185
Do.....	West Seattle High School.....	19	0			0	30
Sedro-Woolley.....	Union High School.....			12	13		
Sequim.....	High School.....	12	8			0	4
Snohomish.....	do.....	42	0	24	0		82
Spokane.....	Lewis and Clark High School.....	199	0			0	372
Do.....	North Central High School.....	343	0	61	58	0	410
Stanwood.....	High School.....	17	0			0	39
Sunnyside.....	do.....			21	11		
Tacoma.....	Stadium High School.....	398	0	20	10	0	478
Walla Walla.....	High School.....	37	0			0	22
Wenatchee.....	do.....	59	0	69	5	0	110
White Salmon.....	do.....	17	0			0	22
Winlock.....	do.....	20	8				
WEST VIRGINIA.							
Charleston.....	High School.....					0	180
Hinton.....	do.....					0	20
Parkersburg.....	do.....	58	0	14	12	0	263
Thomas.....	do.....					0	46
Wheeling.....	do.....	62	0			0	71
WISCONSIN.							
Algoma.....	High School.....	52	0			0	57
Amery.....	do.....			29	4		
Antigo.....	do.....	53	0			0	76
Appleton.....	do.....	87	0			0	114
Arena.....	Township High School.....			27	0	0	26
Ashland.....	High School.....	51	0			0	69
Angusta.....	do.....					0	42
Bangor.....	do.....	16	0			0	38
Baraboo.....	do.....	36	0			0	40
Barron.....	do.....			58	17		
Beaver Dam.....	do.....	38	0	18	26	0	39
Belmont.....	do.....					0	
Beloit.....	do.....	58	0			0	96
Berlin.....	do.....					0	45
Boscobel.....	do.....			22	0	0	30
Broadhead.....	do.....			20	5		
Chilton.....	do.....					0	42
Chippewa Falls.....	do.....	25	0			0	60
Climonville.....	do.....	26	0		10	0	50
Cumberland.....	do.....			20	0		
Darlington.....	do.....			48	8		
De Forest.....	Windsor Township High School.....					0	20
Delavan.....	High School.....					0	41
Durand.....	do.....					0	40
Edgerton.....	do.....	31	0	12	0		
Fairchild.....	do.....			25	29		
Fennimore.....	do.....					0	42
Fort Atkinson.....	do.....					0	37
Gilmanston.....	Agricultural High School.....			7	16		
Glenwood City.....	High School.....	20	0			0	30
Grand Rapids.....	do.....	67	0			0	74
Green Bay.....	East High School.....	89	0	36	0	0	139
Do.....	West High School.....	89	0	96	0	0	96
Greenwood.....	High School.....			15	12		
Hayward.....	do.....	16	0			0	29

TABLE 1.—*Students in public high schools in manual or technical training, agricultural, and domestic economy courses, 1913-14—Continued.*

Location.	Name of school.	Students in manual or technical training courses.		Students in agricultural courses.		Students in domestic economy courses.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1	2	3	4	5	6	7	8
WISCONSIN—contd.							
Janesville.....	High School.....	40	0	20	0	0	95
Kaukauna.....	do.....	18	0	.....	.....	0	41
Kiel.....	do.....	18	0	.....	.....	0	26
La Crosse.....	do.....	190	0	.....	.....	0	192
Lake Geneva.....	do.....	20	0	.....	.....	0	20
Lancaster.....	do.....	34	0	.....	.....	0	40
Livingston.....	Union High School.....	.....	.....	26	0	.....	.....
Madison.....	High School.....	133	0	.....	.....	0	176
Manitowoc.....	Washington High School.....	41	0	.....	.....	0	35
Marquette.....	High School.....	70	0	.....	.....	0	96
Marshall.....	do.....	14	0	.....	.....	0	20
Marshfield.....	do.....	.....	.....	.....	.....	0	39
Menasha.....	do.....	23	0	.....	.....	0	22
Menomonee.....	do.....	110	0	55	0	0	147
Merrill.....	do.....	72	0	.....	.....	0	80
Merrillan.....	do.....	.....	.....	23	0	0	24
Milwaukee.....	East Division High School.....	50	0	.....	.....	.....	.....
Do.....	North Division High School.....	117	0	.....	.....	0	47
Do.....	South Division High School.....	88	0	.....	.....	0	44
Do.....	Washington High School.....	84	0	.....	.....	0	78
Do.....	West Division High School.....	85	0	.....	.....	0	32
Mondovi.....	High School.....	.....	.....	34	6	0	34
Mount Hope.....	do.....	.....	.....	15	14	0	12
Mount Horeb.....	do.....	30	0	.....	.....	0	40
Mukwonago.....	do.....	.....	.....	20	5	.....	.....
Neenah.....	Kimberly High School.....	35	0	9	2	0	28
Nellsville.....	High School.....	31	0	.....	.....	0	48
Omro.....	do.....	48	1	5	13	0	61
Oregon.....	do.....	.....	.....	20	0	0	.....
Oshkosh.....	do.....	178	0	44	32	0	197
Plymouth.....	do.....	.....	.....	.....	.....	0	.....
Portage.....	do.....	27	0	.....	.....	0	45
Princeton.....	do.....	.....	.....	14	0	0	27
Racine.....	do.....	227	0	.....	.....	0	236
Reedsburg.....	do.....	25	0	.....	.....	0	30
Rhineland.....	do.....	20	0	.....	.....	0	50
Rice Lake.....	do.....	18	0	.....	.....	0	43
Richland Center.....	do.....	.....	.....	8	2	0	40
St. Croix Falls.....	do.....	22	0	31	27	0	32
Shell Lake.....	do.....	23	0	.....	.....	0	40
Shiocton.....	do.....	.....	.....	19	0	0	25
Sparta.....	do.....	41	0	16	0	0	50
Stanley.....	do.....	28	0	.....	.....	0	37
Stevens Point.....	do.....	38	0	.....	.....	0	73
Stoughton.....	do.....	59	0	18	2	0	69
Sturgeon Bay.....	do.....	47	0	.....	.....	0	.....
Superior.....	do.....	139	0	.....	.....	0	175
Do.....	Nelson Dewey High School.....	41	0	.....	.....	0	61
Tomah.....	High School.....	36	0	.....	.....	0	40
Trempealeau.....	do.....	.....	.....	12	19	0	.....
Two Rivers.....	do.....	22	0	6	0	0	23
Viola.....	do.....	.....	.....	12	8	0	.....
Viroqua.....	do.....	48	0	46	0	0	68
Washburn.....	do.....	44	0	27	4	0	33
Waterloo.....	do.....	.....	.....	10	11	.....	.....
Waupun.....	do.....	20	0	10	3	0	20
Wausaukee.....	Wausaukee Township High School.....	25	0	.....	.....	0	40
West Bend.....	High School.....	32	0	.....	.....	0	22
West De Pere.....	do.....	22	0	.....	.....	0	39
West Salem.....	do.....	.....	.....	.....	.....	0	30
WYOMING.							
Afton.....	Star Valley High School.....	.....	.....	.....	.....	0	41
Cheyenne.....	High School.....	20	0	.....	.....	0	24
Total, 1,414 schools.....	.....	50,657	5,289	13,108	6,801	263	67,256

TABLE 2.—Public manual-training high schools—Instructors and students, 1913-14.

States.	Schools reporting.	Instructors.			Pupils.			Literary instruction.						Manual arts instruction.					
		Men.	Women.	Total.	Male.	Female.	Total.	Men.	Women.	Male.	Female.	Elementary pupils.	Secondary students.	Men.	Women.	Male.	Female.	Elementary pupils.	Secondary students.
United States.....	55	1,202	840	2,042	34,440	19,977	54,417	736	581	1,054	936	28,764	15,926	564	297	1,172	966	29,374	14,218
North Atlantic Division.....	19	561	295	856	15,893	8,721	24,614	346	203	220	0	13,165	7,063	228	98	190	0	14,815	6,321
Massachusetts.....	7	142	82	224	4,064	1,473	5,537	67	58	.....	.....	2,304	1,447	85	30	.....	.....	3,618	1,117
Rhode Island.....	1	35	31	66	966	449	1,415	18	19	.....	.....	1,449	17	17	13	.....	.....	966	449
New York.....	6	256	137	393	7,594	5,688	13,282	162	93	30	0	6,815	4,065	92	44	.....	.....	7,544	4,267
New Jersey.....	2	28	21	47	743	408	1,151	17	16	190	0	553	.....	9	5	190	0	484	.....
Pennsylvania.....	3	102	24	126	2,526	693	3,219	82	17	.....	.....	2,526	693	25	7	.....	.....	2,203	261
North Central Division.....	13	296	249	546	9,229	4,730	13,959	174	181	207	293	8,132	3,801	137	77	699	607	7,187	2,905
Ohio.....	2	57	44	101	1,443	794	2,237	35	35	.....	.....	1,443	794	39	25	.....	.....	1,443	794
Indiana.....	1	37	44	81	1,194	559	1,753	22	40	.....	.....	1,180	907	15	4	.....	.....	1,800	760
Illinois.....	4	120	52	172	3,772	2,113	5,885	77	42	57	96	3,574	383	43	10	57	96	3,501	271
Michigan.....	2	36	25	61	1,046	796	1,842	15	15	.....	.....	467	415	17	7	267	161	570	210
Minnesota.....	3	19	62	71	1,027	706	1,733	10	31	150	200	722	386	11	17	275	350	371	244
Missouri.....	1	27	32	59	746	966	1,712	15	18	.....	.....	746	966	12	14	.....	.....	472	636
South Atlantic Division.....	9	126	77	203	3,365	1,623	5,018	81	54	317	380	3,078	1,243	96	82	148	213	3,078	1,243
Maryland.....	4	67	29	96	1,800	709	2,509	57	21	224	232	1,576	477	59	11	55	65	1,576	477
District of Columbia.....	2	43	43	86	1,024	699	1,723	13	28	.....	.....	1,024	699	26	16	.....	.....	1,024	699
Georgia.....	3	16	5	21	571	215	786	11	5	93	148	478	67	11	5	93	148	478	67
South Central Division.....	4	36	35	71	546	738	1,284	28	22	0	10	546	738	11	13	0	10	519	708
Kentucky.....	2	26	6	32	505	141	646	17	5	.....	.....	505	141	10	1	.....	.....	478	121
Alabama.....	1	5	21	26	0	465	465	6	11	0	10	0	148	1	10	.....	.....	478	121
Oklahoma.....	1	5	8	13	41	102	143	4	6	.....	.....	41	102	1	2	.....	.....	41	102
Western Division.....	10	183	184	367	5,377	4,165	9,542	109	121	290	260	3,943	3,071	92	77	135	156	3,905	3,041
Colorado.....	3	34	64	98	924	942	1,866	17	47	290	260	634	692	16	18	135	156	639	692
California.....	7	149	120	269	4,453	3,223	7,676	92	74	.....	.....	3,200	2,379	76	69	.....	.....	3,176	2,379

TABLE 3.—Public manual-training high schools—Property, equipment, and expenditure, 1913-14.

States.	Libraries.		Grounds and buildings.		Scientific apparatus, etc.		Money value of endowment.		For salaries of teachers.		For sites, buildings, and improvements.		For new tools and repairs.		For materials.		For incidentals.		Total.		
	Schools re- porting.	Volumes.	Value.	Schools re- porting.	Value.	Schools re- porting.	Value.	Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.	Amount.		
United States.....	44	102,223	\$129,865	45	\$15,854,610	43	\$2,387,709	2	\$1,010,000	34	\$1,034,774	14	\$54,407	25	\$47,491	31	\$62,332	21	\$50,825	34	\$1,276,829
North Atlantic Division.	13	23,313	31,383	14	6,193,902	12	1,081,323			11	389,871	3	16,242	7	9,861	9	21,758	6	13,240	11	450,993
Massachusetts.....	4	2,810	6,906	5	1,837,538	4	200,069			5	148,226	1	11,328	2	300	4	8,002	3	6,221	5	173,167
Rhode Island.....	4	10,913	11,928	4	3,071,314	4	622,254			2	80,606	1	2,414	1	2,666	2	6,228	2	7,019	2	89,430
New York.....	2	3,750	5,900	2	310,000	1	30,000			2	21,999	1	2,414	1	3,491	1	810	2	7,019	2	35,768
New Jersey.....	3	5,840	7,650	3	975,000	3	229,000			2	139,070	1	2,500	2	3,464	2	6,628	1	1,000	2	152,652
Pennsylvania.....	11	16,066	24,182	12	4,131,183	11	568,000	1	610,000	7	305,248	3	7,427	5	6,458	7	33,643	3	26,260	7	378,033
North Central Division.	2	3,500	6,000	2	1,042,600	2	80,000			1	50,000			1	3,000	1	12,000			1	62,000
Ohio.....	1	4,000	5,000	1	500,000	4	312,000			3	81,700	1	6,500	2	2,800	3	12,300	1	500	3	97,597
Indiana.....	2	2,780	5,800	4	1,399,123	4	129,000	1	610,000	1	19,850	1	1,960	1	983	1	1,943	1	10,150	1	34,516
Illinois.....	2	1,444	2,230	2	528,960	2	12,000			1	98,068			1	242	1	2,900	1	14,560	1	116,420
Michigan.....	1	1,852	2,672	2	462,500	2	25,000			4	42,980	3	10,488	3	1,485	3	2,900	3	2,004	4	59,835
Minnesota.....	1	1,510	1,510	1	200,000	1	25,000			2	13,160	1	386	1	585	1	1,400	2	1,704	2	17,235
Missouri.....	7	5,100	9,400	7	1,927,628	7	342,388			2	29,800	2	10,100	2	900	2	1,500	1	300	2	43,000
South Atlantic Division.	3	2,500	4,100	4	1,108,128	4	180,888			3	39,300	2	2,268	3	5,548	3	3,678	3	3,008	3	53,795
Maryland.....	2	2,500	4,700	1	645,000	1	139,000			2	22,800	1	1,296	2	5,048	2	3,076	2	2,208	2	34,395
District of Columbia.....	2	550	1,000	2	77,500	2	22,500			1	16,500	1	1,000	1	500	1	600	1	800	1	19,400
Georgia.....	4	9,432	15,500	4	558,900	4	40,500	1	400,000	3	39,300	2	2,268	3	5,548	3	3,678	3	3,008	3	53,795
South Central Division.	2	2,600	5,000	2	218,900	2	32,000			2	22,800	1	1,296	2	5,048	2	3,076	2	2,208	2	34,395
Kentucky.....	1	6,400	10,000	1	300,000	1	8,000	1	400,000	1	16,500	1	1,000	1	500	1	600	1	800	1	19,400
Alabama.....	1	332	500	1	40,000	1	500			9	257,395	3	17,988	7	24,122	9	30,355	6	7,346	9	337,204
Oklahoma.....	9	48,282	49,400	8	3,043,000	9	365,500			2	62,000			2	900	2	3,200	2	900	2	67,000
Western Division.	7	42,782	43,100	6	2,620,000	7	324,000			7	196,395	3	17,988	5	23,222	7	27,155	4	6,448	7	270,204
Colorado.....	2	5,500	6,300	2	523,000	2	41,500			2	62,000			2	900	2	3,200	2	900	2	67,000
California.....	7	42,782	43,100	6	2,620,000	7	324,000			7	196,395	3	17,988	5	23,222	7	27,155	4	6,448	7	270,204

TABLE 4.—*Schools of agriculture—Instructors and students, 1913-14.*

States.	Schools reporting.	Instructors.			Pupils.			Literary instruction.				Manual-arts instruction.			
								Instructors.		Elementary pupils.		Secondary students.		Instructors.	
		Men.	Women.	Total.	Male.	Female.	Total.	Men.	Women.	Male.	Female.	Male.	Female.	Men.	Women.
United States.....	115	452	495	947	10,351	8,745	19,096	322	378	4,775	4,506	5,073	4,031	359	250
North Atlantic Division.....	10	72	26	98	1,131	313	1,449	41	15	512	120	524	188	62	21
Vermont.....	1	5	1	6	78	0	78	2	1	71	96	78	0	5	1
Massachusetts.....	2	8	17	25	117	145	262	5	4	71	96	46	47	8	7
New York.....	3	35	6	41	546	112	658	10	3	230	0	221	106	25	6
New Jersey.....	1	11	0	11	101	0	101	11	0	101	0	0	0	11	0
Pennsylvania.....	3	13	7	20	289	61	350	13	7	110	25	179	36	13	7
North Central Division.....	19	86	104	190	1,965	1,871	3,836	42	80	993	1,159	890	690	67	36
Indiana.....	1	6	0	6	85	0	85	6	0	.....	.....	85	0	6	0
Michigan.....	2	6	2	8	51	39	90	3	1	51	.....	51	39	1	1
Wisconsin.....	6	23	11	33	271	177	448	8	7	449	564	271	177	20	9
Minnesota.....	3	13	36	54	710	746	1,456	5	27	.....	.....	149	157	17	11
Missouri.....	1	4	3	7	67	41	108	2	2	32	26	44	26	2	2
North Dakota.....	6	23	45	68	706	794	1,500	15	39	504	663	202	232	12	9
Nebraska.....	1	5	4	9	56	58	114	2	2	.....	.....	53	60	3	2
Kansas.....	1	2	3	5	19	16	35	1	2	8	7	11	9	1	1
South Atlantic Division.....	30	99	139	238	2,585	2,376	4,961	76	97	1,205	1,338	1,190	916	77	62
Maryland.....	4	11	11	22	190	193	383	10	9	101	106	89	87	8	5
Virginia.....	10	20	66	86	1,026	1,256	2,282	19	49	726	854	304	395	13	23
North Carolina.....	4	14	20	34	329	304	633	6	10	200	180	48	75	10	7
South Carolina.....	1	9	13	22	135	135	270	2	6	135	171	48	153	7	9
Georgia.....	11	45	29	74	905	462	1,367	39	23	44	27	749	359	34	19
South Central Division.....	54	180	214	394	4,480	4,025	8,505	154	177	1,990	1,894	2,378	2,147	143	128
Tennessee.....	2	9	13	22	69	75	144	9	13	.....	.....	69	75	8	11
Alabama.....	10	26	40	66	927	848	1,775	25	32	227	228	700	620	20	27
Mississippi.....	22	54	71	125	1,439	1,399	2,838	51	54	590	513	949	867	49	51
Louisiana.....	11	27	57	84	970	1,031	2,001	21	51	765	840	167	213	21	16
Arkansas.....	4	36	21	57	610	351	961	26	18	300	187	310	214	26	16
Oklahoma.....	5	28	12	40	291	251	542	22	9	108	95	183	158	19	7
Western Division.....	2	15	12	27	190	155	345	9	9	75	65	115	90	10	3
California.....	2	15	12	27	190	155	345	9	9	75	65	115	90	10	3

TABLE 5.—Schools of agriculture—Property, equipment, and expenditure, 1913-14.

States.	Libraries.			Grounds and buildings.			Scientific apparatus, etc.			Money value of equipment.			Expenditures.						Total.		
	Volumes.		Value.	Value.		Value.	Value.		Amount.		Amount.		For new tools and repairs.		For materials.		For incidentals.				
	Schools re- porting.			Schools re- porting.		Schools re- porting.		Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.	Amount.	Schools re- porting.		Amount.	
United States.....	100	45,511	\$53,056	105	\$5,955,071	101	\$499,805	10	\$511,663	59	\$371,999	53	\$329,026	56	\$58,584	53	\$82,537	49	\$121,596	68	\$993,742
North Atlantic Division.....	8	13,043	7,944	8	940,742	8	89,616	2	350,663	5	60,781	5	16,528	5	4,011	5	63,470	4	50,368	5	155,136
Vermont.....	1	5,000	2,500	1	40,000	1	5,000	1	260,663	1	19,036	1	2,773	1	832	1	5,260	1	3,708	1	31,719
Massachusetts.....	2	143	193	2	106,000	2	16,700	1	260,663	3	24,853	3	12,043	3	1,660	3	16,062	2	46,419	3	111,027
New York.....	3	1,500	2,401	3	644,642	3	41,116														
New Jersey.....																					
Pennsylvania.....	2	6,400	2,850	2	150,100	2	26,800	1	90,000	1	6,872	1	1,712	1	1,460	1	2,188	1	139	1	12,380
North Central Division.....	16	11,924	11,403	16	1,399,450	16	173,098	1	3,000	13	111,648	12	113,213	12	30,560	13	37,825	11	39,803	13	\$32,749
Indiana.....	2	287	430	2	98,000	2	7,100			1	4,720	1	260	1	35	1	60	1	50	1	6,115
Michigan.....	4	2,921	3,800	4	407,600	4	65,138			1	6	3	4	3	5,213	3	20,732	3	24,723	3	102,786
Wisconsin.....	3	2,996	2,448	3	615,350	3	72,110			3	39,438	4	67,500	4	22,962	3	12,908	3	13,400	3	155,208
Minnesota.....										2	2,700	2	2,500	1	250	1	300	1	100	1	5,850
Missouri.....										1	3,000	2	2,500	2	600	2	535	1	100	2	32,200
North Dakota.....	5	4,695	3,025	4	111,500	4	17,650			1	4,983	1	10,000	1	1,500	1	3,000	1	2,500	1	31,500
South Dakota.....	1	625	900	1	150,000	1	10,000														
Nebraska.....	1	400	800	1	12,000	1	100														
Kansas.....																					
South Atlantic Division.....	29	13,312	8,007	29	1,400,239	28	69,119	2	28,000	11	40,125	11	33,484	10	3,040	11	8,749	10	9,335	15	94,783
Maryland.....	4	963	672	3	37,500	4	2,450														
Virginia.....	10	4,670	2,325	9	245,600	9	17,000			2	2,755	2	3,675	2	165	2	220	1	25	3	6,840
North Carolina.....	4	1,100	800	4	226,000	4	12,600	1	19,000	3	8,905	3	8,600	3	1,225	3	1,456	4	4,395	4	24,581
South Carolina.....	1	2,831	1,250	1	51,139	1	8,484			4	4,504										
Georgia.....	10	3,768	2,960	11	840,000	10	28,585	1	10,000	6	23,961	6	31,209	5	1,650	4	1,150	4	3,654	7	51,463

South Central Division.....	45	25,232	23,752	50	1,939,640	47	132,972	5	129,000	28	151,065	23	159,801	27	18,773	23	9,793	23	20,302	33	359,734
Tennessee.....	2	2,150	2,000	2	130,265	2	10,831	1	60,000	6	23,795	1	3,000	1	600	4	1,000	1	7,500	1	11,100
Alabama.....	9	6,530	7,450	9	173,000	9	9,000	1	4,500	10	27,605	3	1,400	5	800	7	1,275	6	4,005	6	31,000
Mississippi.....	15	2,730	2,210	20	508,260	17	23,665	2	17,500	4	13,330	10	40,739	9	2,515	4	1,283	11	1,357	11	73,491
Louisiana.....	10	6,005	4,967	10	233,115	10	24,476	1	47,000	4	74,000	4	9,162	4	1,208	4	1,283	4	840	6	26,833
Arkansas.....	4	3,350	4,175	4	720,000	4	26,500	.....	.....	3	12,335	1	90,500	4	10,000	4	5,200	2	1,500	4	181,800
Oklahoma.....	5	4,517	2,950	5	175,000	5	38,500	.....	.....	5	12,335	1	15,000	4	3,050	4	1,025	4	5,100	5	36,510
Western Division.....	2	1,750	1,950	2	275,000	2	35,000	.....	.....	2	8,400	2	6,000	2	2,200	1	3,000	1	1,800	2	21,400
California.....	2	1,750	1,950	2	275,000	2	35,000	.....	.....	2	8,400	2	6,000	2	2,200	1	3,000	1	1,800	2	21,400

TABLE 6.—Manual and industrial training schools—Instructors and students, 1913-14, not including Indian schools.

States.	Schools reporting.	Instructors.			Pupils.			Literary instruction.						Manual-arts instruction.					
		Men.	Women.	Total.	Male.	Female.	Total.	Instructors.		Elementary pupils.		Secondary students.	Instructors.		Elementary pupils.		Secondary students.		
								Men.	Women.	Male.	Female.		Male.	Female.	Male.	Women.		Male.	Female.
United States.....	229	2,133	1,559	3,692	65,728	35,244	100,972	634	769	18,479	10,206	12,736	8,964	1,945	1,113	20,126	12,162	40,812	20,337
North Atlantic Division...	95	1,364	705	2,069	47,520	18,214	65,734	243	246	13,337	2,457	6,734	3,679	1,224	561	15,711	5,001	29,044	12,291
Maine.....	1	0	4	4	411	0	411	1	0	22	0	0	63	0	4	309	0	102	63
New Hampshire.....	1	7	0	7	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
Vermont.....	31	412	180	592	11,963	4,186	16,149	69	76	2,111	1,113	804	728	376	154	2,797	2,613	7,626	1,656
Massachusetts.....	2	45	17	62	1,481	824	2,305	4	0	0	0	85	37	44	12	665	646	816	178
Rhode Island.....	2	50	20	70	1,260	360	1,620	14	3	344	0	300	37	39	17	666	108	417	252
Connecticut.....	31	536	335	871	23,529	9,561	33,120	60	80	8,746	713	2,250	1,533	450	266	9,308	1,160	14,152	8,057
New York.....	6	61	10	71	1,194	346	1,640	14	1	93	9	1,149	16	15	10	126	8	1,024	337
New Jersey.....	19	263	139	392	7,662	2,844	10,506	81	82	2,021	622	3,066	1,060	213	98	1,850	1,076	4,908	1,748
Pennsylvania.....	45	337	213	550	7,006	4,897	12,503	156	87	633	586	2,860	1,494	286	154	923	519	6,211	3,945
North Central Division....																			
Ohio.....	9	57	72	129	1,026	1,788	3,414	44	19	216	237	1,066	232	54	68	318	267	1,149	1,368
Indiana.....	4	48	11	59	1,066	208	1,254	13	8	34	0	66	15	15	11	227	0	829	208
Illinois.....	8	102	51	153	2,225	885	3,130	48	32	319	282	757	600	72	19	281	194	1,650	467
Michigan.....	2	48	4	52	1,121	174	1,295	2	3	16	14	60	27	0	3	50	14	94	27
Wisconsin.....	7	38	25	63	73	929	1,199	21	9	5	5	571	441	25	27	5	5	924	194
Minnesota.....	2	10	8	18	190	0	190	0	0	0	0	120	0	10	8	8	0	190	208
Iowa.....	1	4	0	4	50	0	50	4	0	0	0	50	0	4	0	0	0	50	0
Missouri.....	5	43	14	57	1,165	302	1,467	7	2	0	0	183	30	36	12	60	1,165	302	302
North Dakota.....	1	4	4	8	57	31	88	0	0	4	6	41	30	4	0	0	41	57	31
South Dakota.....	1	6	4	10	66	45	101	5	2	6	8	39	48	3	2	6	6	33	43
Nebraska.....	1	2	0	2	20	3	23	0	0	0	0	0	0	2	0	0	0	20	3
Kansas.....	2	15	10	25	101	154	255	12	8	37	40	57	91	9	4	38	33	50	79
South Atlantic Division...	48	204	339	543	4,980	6,274	11,254	96	229	2,132	4,100	760	1,432	166	211	1,679	3,315	2,474	1,712
District of Columbia.....	3	44	7	51	1,327	280	1,587	9	1	153	0	42	2	6	0	94	0	1,186	280
Delaware.....	3	15	28	43	306	230	536	1	3	90	48	8	4	15	28	20	50	155	160

	7	40	21	61	764	392	1,156	13	18	124	223	97	169	38	16	71	177	638	170
Virginia.....	10	24	55	70	464	768	1,232	19	40	272	472	181	201	16	36	156	466	111	245
West Virginia.....	8	20	50	88	788	1,488	2,276	37	61	556	1,019	126	272	24	48	535	896	145	266
North Carolina.....	14	49	141	190	1,261	2,768	4,049	26	97	942	2,019	302	661	33	68	665	1,510	256	563
Georgia.....	3	3	28	31	70	278	448	1	19	15	319	8	52	2	9	38	216	11	36
Florida.....	31	155	267	422	3,990	5,437	9,427	123	220	2,351	3,147	1,546	1,989	112	108	1,317	2,711	1,472	1,998
South Central Division.....																			
Kentucky.....	3	12	26	38	244	278	522	6	18	188	218	61	60	8	12	188	218	61	60
Tennessee.....	1	2	2	4	43	24	67							2	2			43	24
Alabama.....	11	41	105	146	1,367	2,035	3,402	33	90	1,110	1,608	261	391	22	51	694	1,126	211	338
Mississippi.....	7	33	49	82	907	956	1,863	32	42	670	763	223	191	30	40	572	692	178	180
Louisiana.....	5	52	41	93	1,216	1,197	2,413	38	28	262	261	926	678	37	24	262	389	893	787
Texas.....	2	12	33	45	170	712	882	11	31	86	90	84	622	11	28	86	90	84	622
Arkansas.....	1	3	3	6	43	92	135	3	3	40	82	3	10	2	3	20	60	3	10
Oklahoma.....	1	0	8	8	0	143	143	0	8	0	136	0	7	0	8	0	136	0	7
Western Division.....	10	73	35	108	1,632	422	2,054	16	17	6	6	846	380	57	19	6	6	1,610	411
Montana.....	1	8	4	12	90	60	180	6	2			90	60	2	2			74	55
Wyoming.....																			
Colorado.....	1	5	0	5	56	0	56	1	0			56	0	4	0			56	0
New Mexico.....																			
Arizona.....																			
Utah.....																			
Nevada.....																			
Idaho.....	1	4	6	10	27	32	59	2	4	6	6	21	20	2	3	6	6	21	20
Washington.....																			
Oregon.....																			
California.....	7	56	26	81	1,459	330	1,789	7	11			679	304	49	14			1,459	330

TABLE 7.—Manual and industrial training schools—Property, equipment, and expenditures, 1913-14, not including Indian schools.

States.	Libraries.			Grounds and buildings.			Scientific apparatus, etc.			Money value of endowment.			Expenditures.						Total.		
	Schools reporting.	Volumes.	Value.	Schools reporting.	Value.	Schools reporting.	Amount.	Schools reporting.	Amount.	For salaries of teachers.		For sites, buildings, and improvements.		For new tools and repairs.		For materials.		For incidentals.			
										Schools reporting.	Amount.	Schools reporting.	Amount.	Schools reporting.	Amount.	Schools reporting.	Amount.	Schools reporting.	Amount.	Schools reporting.	Amount.
United States.....	167,540	652,974,581	163,928,981,588	163,928,981,588	162,833,865,102	56,839,698,381	171,82,081,600	94,8546,541	129,9183,126	131,9500,829	129,9183,126	57,352,961	173,83,804,726								
North Atlantic Division.....	60,316	132	462,381	58	18,498,410	64	2,453,771	24	23,860,041	73	1,401,012	36	176,452	56	90,342	61	412,124	57	352,961	74	2,438,981
Maine.....	1	128	200	1	30,000	1	3,750	1	6,320	1	3,750	1	2,660	1	2,227	1	2,660	1	2,660	1	6,400
New Hampshire.....	1	128	200	1	30,000	1	3,750	1	6,320	1	3,750	1	2,660	1	2,227	1	2,660	1	2,660	1	8,547
Vermont.....	1	128	200	1	30,000	1	3,750	1	6,320	1	3,750	1	2,660	1	2,227	1	2,660	1	2,660	1	6,400
Massachusetts.....	15	6,608	8,714	14	2,598,798	17	678,157	4	4,009,676	26	365,151	11	76,053	22	34,736	28	73,246	21	97,024	26	646,210
Rhode Island.....	2	2,561	13,200	2	270,000	2	13,000	2	231,000	1	36,616	1	13,128	1	8,042	1	8,042	3	12,602	3	53,819
Connecticut.....	4	1,124	633	3	575,000	4	75,788	2	169,000	4	58,858	20	20,032	4	20,032	4	20,032	4	6,150	4	104,842
New York.....	20,235	724	249,414	18	7,371,434	23	953,778	9	11,096,885	26	749,981	10	13,988	15	25,101	20	290,509	17	94,798	26	1,152,415
New Jersey.....	3	1,750	3,750	4	214,000	4	30,250	4	30,250	3	30,327	4	4,798	3	1,135	6	6,390	3	5,980	6	43,438
Pennsylvania.....	15	68,226	186,470	16	7,441,178	15	697,800	7	8,383,500	11	154,874	8	48,557	11	20,128	9	48,180	19	151,491	12	423,280
North Central Division.....	33	69,480	77,819	29	4,559,916	31	767,992	11	10,755,900	34	399,567	14	90,604	26	33,376	26	57,642	28	47,904	24	599,083
Ohio.....	7	17,494	17,967	6	1,392,000	6	314,992	4	5,050,000	6	70,324	1	3,800	5	6,113	6	6,774	5	7,859	6	94,867
Indiana.....	3	2,894	5,060	3	356,500	3	2,750	1	10,000	6	24,177	2	7,500	3	1,000	3	1,448	4	2,187	4	46,312
Illinois.....	6	30,012	30,400	4	1,075,000	6	190,000	3	2,420,900	6	57,444	1	3,540	3	2,200	4	8,305	4	2,730	6	74,219
Michigan.....	3	6,622	6,630	2	141,100	2	1,250	1	75,000	4	4,898	1	4,898	2	428	2	200	3	329	3	5,522
Wisconsin.....	6	2,910	5,890	5	441,860	5	115,499	5	115,499	2	90,707	3	68,292	4	9,629	3	19,079	3	6,892	4	194,632
Minnesota.....	1	7,068	3,000	1	3,000	1	2,000	1	2,000	1	6,245	1	300	1	50	1	100	2	940	2	7,335
Iowa.....	3	2,730	10,400	4	928,870	3	18,000	2	3,200,000	4	63,910	2	672	3	9,510	2	18,084	3	25,983	4	6,700
Missouri.....	1	1,350	1,200	1	55,000	1	88,790	1	88,790	1	260	1	260	1	260	1	260	1	260	1	118,163
North Dakota.....	1	710	462	1	42,886	1	8,871	1	8,871	1	1,100	1	200	1	216	1	1,450	1	60	1	1,335
South Dakota.....	2	3,700	3,150	2	126,200	2	26,400	2	26,400	2	37,862	2	6,150	2	2,060	2	1,076	2	528	2	47,162
Nebraska.....	38	87,807	26,871	41	2,417,963	34	249,366	9	1,671,635	35	113,071	24	89,436	26	10,118	22	10,099	26	77,413	35	300,132
Kansas.....	3	16,150	2,600	2	555,000	2	75,000	1	1,538,000	2	12,350	1	40,000	2	5,100	1	1,000	1	300	2	58,760
South Atlantic Division.....	3	16,150	2,600	2	555,000	2	75,000	1	1,538,000	2	12,350	1	40,000	2	5,100	1	1,000	1	300	2	58,760
Delaware.....	3	16,150	2,600	2	555,000	2	75,000	1	1,538,000	2	12,350	1	40,000	2	5,100	1	1,000	1	300	2	58,760
Maryland.....	3	16,150	2,600	2	555,000	2	75,000	1	1,538,000	2	12,350	1	40,000	2	5,100	1	1,000	1	300	2	58,760

District of Columbia.....	3	1,268	1,550	2	331,400	2	30,811	2	20,000	2	4,900	1	1,500	1	2,300	2	37,706	2	66,466
Virginia.....	4	8,110	5,165	5	154,063	4	22,430	4	12,251	3	1,797	4	1,265	4	1,506	4	12,237	4	29,056
West Virginia.....																			
North Carolina.....	8	5,450	3,975	9	245,175	6	17,100	1	5,000	9	18,816	6	10,611	6	705	4	1,625	5	33,918
South Carolina.....	7	10,900	3,650	7	231,650	8	13,160	2	59,000	7	20,012	6	25,850	6	755	4	875	5	19,839
Georgia.....	10	14,291	8,631	11	760,645	10	89,665	3	50,109	8	21,032	6	6,278	7	788	7	2,653	6	1,258
Florida.....	3	1,608	1,100	3	120,000	1	1,200	3	8,580	3	6,278	7	788	1	1,440	3	3,821	3	12,541
South Central Division.....	28	83,225	89,510	29	2,603,370	26	201,384	8	548,385	21	70,884	14	15,658	14	6,617	15	9,157	13	119,273
Kentucky.....	3	9,000	4,600	3	255,310	2	72,358	2	280,408	3	6,084	1	500	2	1,433	2	666	1	2,200
Tennessee.....																			
Alabama.....	11	28,000	37,586	11	10,000	1	2,000	1	1,800	1	1,800	6	3,743	4	1,475	1	2,300	1	5,375
Mississippi.....	6	8,416	4,727	6	347,323	6	25,800	1	204,477	8	16,757	6	3,743	4	1,263	6	2,580	4	26,196
Louisiana.....	5	32,000	38,000	5	800,000	5	153,000	1	3,500	4	6,635	2	1,515	2	2,241	2	886	2	9,384
Texas.....	2	5,000	2,672	2	539,120	1	10,800	1	80,000	4	38,182	3	7,300	3	2,400	3	2,700	4	62,554
Arkansas.....	1	125	125	1	6,500	1	10,800			1	1,436	1	800	1	115	1	15	1	2,221
Oklahoma.....	1	684	1,800									1	2,000	1	650			1	2,660
Western Division.....	7	13,408	18,300	6	881,929	7	102,589	4	2,739,500	8	107,066	6	174,391	8	36,677	7	11,807	5	347,337
Montana.....	1	3,500	4,000	1	150,000	1	10,000			1	14,500	1	22,000	1	2,500			1	39,000
Wyoming.....																			
Colorado.....																			
New Mexico.....																			
Arizona.....																			
Utah.....																			
Nevada.....																			
Idaho.....	1	5,000	7,500	1	175,000	1	5,000	1	100,000	1	6,000	1	15,000	1	2,000	1	100	1	25,600
Washington.....																			
Oregon.....																			
California.....	5	4,908	6,800	4	556,929	4	80,500	3	2,639,500	5	81,067	4	137,391	5	31,412	5	11,207	4	275,973

TABLE 8.—Industrial schools for Indian children—Instructors and students, 1918-19.

States.	Schools reporting.			Instructors.			Pupils.			Literary instruction.						Manual-arts instruction.						
										In-structors.		Elementary pupils.		Secondary students.		In-structors.		Elementary pupils.		Secondary pupils.		
	Men.	Women.	Total.	Male.	Female.	Total.	Men.	Women.	Male.	Female.	Male.	Female.	Men.	Women.	Male.	Female.	Men.	Women.	Male.	Female.		
United States.....	80	439	642	1,081	8,734	7,446	16,180	515	1,224	4	24	687	503	7,112	150	119	365	466	7,537	6,413	146	127
North Atlantic Division.....	3	27	38	65	709	515	1,224	515	1,224	4	24	687	503	7,112	150	119	23	21	614	436	10	8
New York.....	2	2	11	13	98	108	206	108	206	1	10	98	168	168	10	10	1	8	13	97	10	8
Pennsylvania.....	1	25	27	52	611	347	958	347	958	3	14	599	335	14	10	23	13	601	339	10	8	
North Central Division.....	29	184	266	450	3,068	2,917	5,985	2,917	5,985	32	128	2,935	2,793	78	94	145	190	2,595	2,422	78	94	
Michigan.....	1	7	13	20	193	182	375	182	375	0	6	193	182	182	0	7	13	193	182	182	182	
Wisconsin.....	7	18	41	59	426	512	938	512	938	1	24	416	495	0	15	17	29	295	375	375	375	
Minnesota.....	4	26	28	54	380	343	723	343	723	9	13	344	318	318	0	21	24	340	308	308	308	
North Dakota.....	4	36	45	81	372	373	745	373	745	3	13	372	373	373	0	34	34	372	373	373	373	
South Dakota.....	10	48	90	128	918	893	1,811	893	1,811	8	40	898	884	11	6	22	53	745	709	709	709	
Nebraska.....	2	16	28	44	286	283	549	283	549	6	18	285	267	1	6	15	21	213	191	191	191	
Kansas.....	1	33	31	64	463	351	844	351	844	5	14	427	384	66	67	26	17	427	384	264	66	
South Atlantic Division.....	3	13	16	29	155	140	295	140	295	0	6	141	134	14	6	12	13	141	134	14	6	
North Carolina.....	2	13	16	29	155	140	295	140	295	0	6	141	134	14	6	12	13	141	134	14	6	
South Central Division.....	12	44	67	111	928	873	1,801	873	1,801	10	30	911	709	709	0	36	50	886	808	808	808	
Oklahoma.....	12	44	67	111	928	873	1,801	873	1,801	10	30	911	709	709	0	36	50	886	808	808	808	
Western Division.....	34	171	255	426	3,874	3,001	6,875	3,001	6,875	27	118	3,819	2,973	44	9	149	192	3,341	2,613	44	19	
Montana.....	2	2	13	15	66	121	187	121	187	0	7	66	121	121	0	2	11	40	105	105	105	
Wyoming.....	1	8	8	16	90	85	175	85	175	1	3	90	85	85	0	6	6	56	52	52	52	
Colorado.....	1	1	3	5	44	9	53	9	53	2	1	44	44	44	0	2	1	50	44	44	44	
New Mexico.....	8	30	43	73	893	587	1,480	587	1,480	7	27	891	872	872	0	26	31	891	872	872	872	
Arizona.....	9	52	86	138	1,090	845	1,935	845	1,935	7	37	1,087	882	882	0	46	73	1,086	816	816	816	
Utah.....	1	4	7	11	36	32	68	32	68	0	2	36	32	32	0	4	5	36	32	32	32	
Nevada.....	2	2	7	9	170	180	350	180	350	1	6	170	180	180	0	1	2	180	180	180	180	
Idaho.....	1	8	3	11	77	71	148	71	148	0	3	77	74	74	0	8	0	77	74	74	74	
Washington.....	3	22	31	53	390	300	690	300	690	3	11	390	300	300	0	19	26	378	279	279	279	
Oregon.....	2	15	19	24	507	348	855	348	855	3	9	501	348	348	0	12	12	263	200	200	200	
California.....	4	25	26	61	511	423	934	423	934	3	13	511	423	423	0	21	26	423	378	378	378	

TABLE 9.—*Number of instructors and students, by sex, in manual and industrial training schools, public manual-training high schools, and schools of agriculture, 1913-14, not including Indian schools.*

States.	Literary instruction.						Manual-arts instruction.					
	Instructors.		Elementary pupils.		Secondary students.		Instructors.		Elementary pupils.		Secondary students.	
	Men.	Women.	Male.	Female.	Male.	Female.	Men.	Women.	Male.	Female.	Male.	Female.
United States..	956	1,177	23,264	14,802	17,809	12,995	2,204	1,363	22,305	13,872	45,999	24,101
North Atlantic Div..	284	261	13,849	2,577	7,258	3,867	1,286	582	16,183	5,679	20,551	12,499
North Central Div..	198	187	1,626	1,745	3,716	2,174	353	190	1,249	855	7,092	4,465
South Atlantic Div..	172	326	3,357	5,438	1,950	2,368	243	273	2,048	3,722	3,756	2,583
South Central Div..	277	397	4,341	4,971	3,924	4,106	255	296	2,744	3,545	3,875	4,083
Western Division....	25	26	81	71	961	480	67	22	81	71	1,725	501
North Atlantic Div.:												
Maine.....	0	4	.....	.....	0	63	0	4	.....	.....	0	63
New Hampshire..	1	0	23	0	.....	.....	7	0	309	0	102	0
Vermont.....	5	1	.....	.....	78	0	5	1	.....	.....	78	0
Massachusetts....	71	80	2,182	1,208	850	775	384	161	2,828	2,666	7,664	1,706
Rhode Island....	4	0	.....	.....	85	37	44	12	665	646	816	178
Connecticut.....	14	3	344	0	390	252	39	17	656	108	417	252
New York.....	70	83	8,976	713	2,471	1,638	515	272	9,538	1,150	14,363	8,169
New Jersey.....	25	1	194	9	149	16	66	10	227	8	1,024	337
Pennsylvania....	94	89	2,131	647	3,235	1,086	228	105	1,960	1,101	5,087	1,784
North Central Div.:												
Ohio.....	44	19	216	237	1,066	232	54	68	318	267	1,149	1,393
Indiana.....	19	8	34	.....	151	15	54	11	227	.....	914	208
Illinois.....	48	32	319	282	757	600	72	19	281	194	1,650	467
Michigan.....	5	4	16	14	101	66	15	4	50	14	145	66
Wisconsin.....	29	16	5	5	842	618	55	36	5	5	1,195	1,371
Minnesota.....	5	27	449	564	149	157	27	19	103	97	443	339
Iowa.....	4	0	.....	.....	50	0	4	0	.....	.....	50	0
Missouri.....	9	4	32	26	197	26	38	15	17	19	1,176	316
North Dakota....	15	43	504	562	243	262	16	9	206	220	200	124
South Dakota....	5	2	6	8	39	48	3	2	6	6	33	43
Nebraska.....	2	2	.....	.....	53	50	5	2	.....	.....	76	55
Kansas.....	13	10	45	47	68	100	10	5	36	33	61	88
South Atlantic Div.:												
Delaware.....	19	10	254	106	131	90	46	11	94	.....	1,240	308
Maryland.....	1	3	90	48	5	4	15	28	120	50	155	150
Dist. of Columbia.	32	67	849	1,077	401	564	56	38	141	270	935	526
Virginia.....	25	50	472	652	229	366	26	43	320	609	153	294
West Virginia....	29	57	691	1,190	125	272	31	57	670	1,067	145	298
North Carolina..	65	120	986	2,046	1,051	1,020	67	87	665	1,510	1,117	976
South Carolina..	1	19	15	319	8	52	2	9	38	216	11	36
South Central Div.:												
Kentucky.....	6	18	183	218	61	60	8	12	183	218	61	60
Tennessee.....	9	13	.....	.....	69	75	10	13	.....	.....	108	72
Alabama.....	58	122	1,337	1,836	951	1,011	42	78	857	1,316	838	924
Mississippi.....	83	96	1,260	1,280	1,171	1,058	79	91	856	987	1,179	1,047
Louisiana.....	59	79	1,027	1,067	1,062	891	58	40	419	525	1,054	947
Texas.....	11	31	86	90	84	622	11	28	86	90	84	622
Arkansas.....	20	21	340	219	313	224	28	19	235	180	373	226
Oklahoma.....	22	17	108	231	183	165	19	15	108	229	183	165
Western Division:												
Montana.....	6	2	.....	.....	90	60	2	2	.....	.....	74	55
Wyoming.....	1	0	.....	.....	56	0	4	0	.....	.....	56	0
Colorado.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Mexico.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arizona.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Utah.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nevada.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Idaho.....	2	4	6	6	21	26	2	3	6	6	21	26
Washington.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
California.....	16	20	75	65	794	394	59	17	75	65	1,574	420

TABLE 10.—*Manual and industrial training schools, public manual-training high schools, and schools of agriculture—Property and equipment for 1913-14, not including Indian schools.*

States.	Libraries.			Grounds and buildings.		Scientific apparatus, etc.		Money value of endowment.	
	Schools reporting.	Volumes.	Value.	Schools reporting.	Value.	Schools reporting.	Value.	Schools reporting.	Amount.
United States.....	311	707,586	\$357,502	313	\$50,771,269	306	\$6,752,616	68	\$41,127,024
North Atlantic Division.....	81	352,488	501,708	80	26,633,054	84	3,624,710	26	24,240,704
North Central Division.....	60	97,500	113,404	57	10,080,549	58	1,499,090	13	11,368,900
South Atlantic Division.....	74	76,219	43,978	77	5,745,827	69	660,871	11	1,700,535
South Central Division.....	78	117,939	128,762	83	5,101,910	77	464,856	14	1,077,285
Western Division.....	18	63,440	69,650	16	4,199,929	18	503,089	4	2,739,500
North Atlantic Division:									
Maine.....	1	128	200						
New Hampshire.....				1	30,000				
Vermont.....	1	5,000	2,600	1	40,000	1	5,000		
Massachusetts.....	21	9,561	14,812	21	4,540,388	23	894,926	5	4,270,339
Rhode Island.....	2	2,561	13,200	2	270,000	1	13,000	2	231,000
Connecticut.....	4	1,124	633	3	575,000	4	75,788	2	169,000
New York.....	27	248,149	263,743	25	11,087,390	30	1,622,146	9	11,096,865
New Jersey.....	5	5,500	9,650	6	524,000	5	60,250		
Pennsylvania.....	20	80,465	196,970	21	8,566,278	20	953,600	8	8,473,500
North Central Division:									
Ohio.....	9	20,984	23,667	8	2,434,600	8	394,962	4	5,060,000
Indiana.....	4	6,894	10,050	4	856,500	3	2,750	1	10,000
Illinois.....	10	33,792	36,300	8	2,474,133	10	502,000	3	2,420,900
Michigan.....	7	2,353	3,260	6	766,050	6	137,350	2	685,000
Wisconsin.....	10	5,831	9,660	9	849,460	9	180,637		
Minnesota.....	4	4,858	6,120	5	1,077,850	6	84,610		
Iowa.....	1	7,068	3,000	1	3,000	1	2,000		
Missouri.....	4	4,240	11,910	6	1,131,370	5	114,000	2	3,200,000
North Dakota.....	6	6,045	4,225	5	166,500	5	36,410	1	3,000
South Dakota.....	1	710	462	1	42,888	1	8,871		
Nebraska.....	1	625	900	1	150,000	1	10,000		
Kansas.....	3	4,100	3,950	3	138,200	3	25,500		
South Atlantic Division:									
Delaware.....									
Maryland.....	10	19,603	7,272	9	1,787,625	10	258,336	1	1,538,000
District of Columbia.....	5	3,348	6,250	3	966,400	3	166,811		
Virginia.....	14	12,780	7,490	17	399,693	14	39,430	2	19,426
West Virginia.....									
North Carolina.....	12	6,550	4,775	13	491,175	10	29,700	2	24,000
South Carolina.....	8	13,731	4,900	8	282,789	9	21,644	2	59,000
Georgia.....	22	18,599	12,191	24	1,678,145	22	140,750	4	60,109
Florida.....	3	1,808	1,100	3	120,000	1	1,200		
South Central Division:									
Kentucky.....	5	11,600	9,600	5	474,210	4	104,358	2	290,408
Tennessee.....	2	2,150	2,000	3	140,265	3	12,831	1	60,000
Alabama.....	21	41,030	55,036	21	1,118,117	20	44,426	6	608,977
Mississippi.....	21	11,146	6,937	26	855,583	23	49,465	3	21,000
Louisiana.....	15	38,005	42,967	15	1,033,115	15	177,478	2	97,000
Texas.....	2	5,000	2,672	2	539,120	1	10,000		
Arkansas.....	5	3,475	4,300	5	726,500	5	27,300		
Oklahoma.....	7	5,533	5,250	6	215,000	6	39,000		
Western Division:									
Montana.....	1	3,500	4,000	1	150,000	1	10,000		
Wyoming.....									
Colorado.....	2	5,500	6,300	2	523,000	8	48,589		
New Mexico.....									
Arizona.....									
Utah.....									
Nevada.....									
Idaho.....	1	5,000	7,500	1	175,000	1	5,000	1	100,000
Washington.....									
Oregon.....									
California.....	14	49,440	51,850	12	3,351,929	13	439,500	3	2,639,500

¹ Not including \$25,392,167, residuary fund of Girard estate, Philadelphia, Pa.

TABLE 11.—*Manual and industrial training schools, public manual-training high schools, and schools of agriculture reporting expenditures for 1913-14, not including Indian schools.*

States.	For salaries of teachers.		For sites, buildings, and lasting improvements.		For new tools and repairs.		For materials.		Total.	
	Schools reporting.	Amount.	Schools reporting.	Amount.	Schools reporting.	Amount.	Schools reporting.	Amount.	Schools reporting.	Amount.
United States.....	264	\$3,468,373	161	\$920,974	210	\$289,200	215	\$875,068	275	\$46,048,267
North Atlantic Division.....	89	1,851,644	44	209,222	68	110,204	75	457,352	90	3,044,979
North Central Division.....	54	786,463	29	211,244	42	70,421	46	128,810	54	1,309,875
South Atlantic Division.....	50	196,158	38	133,406	39	14,638	36	21,748	54	454,700
South Central Division.....	52	261,249	39	177,725	44	30,938	41	22,626	58	532,802
Western Division.....	19	372,981	11	198,377	17	62,999	17	45,162	19	705,941
North Atlantic Division:										
Maine.....	1	3,750							1	6,400
New Hampshire.....	1	6,320					1	2,227	1	8,547
Vermont.....										
Massachusetts.....	31	532,413	13	90,184	25	35,918	27	86,568	31	851,096
Rhode Island.....	1	32,651	1	13,126	1	8,042			1	53,819
Connecticut.....	4	56,858	2	20,082	4	7,200	4	12,602	4	104,842
New York.....	30	864,540	13	26,001	19	29,357	25	291,789	30	1,352,872
New Jersey.....	7	52,296	5	7,140	5	4,626	6	7,170	7	79,181
Pennsylvania.....	14	300,816	10	52,769	14	25,061	12	56,996	15	598,272
North Central Division:										
Ohio.....	7	120,324	1	3,800	5	6,113	7	18,774	7	156,867
Indiana.....	5	59,177	3	13,000	3	4,000	4	4,948	5	113,812
Illinois.....	9	139,144	2	3,877	5	4,460	7	21,605	9	171,816
Michigan.....	5	28,968	3	1,990	4	1,443	4	2,203	5	45,133
Wisconsin.....	9	136,062	7	75,055	8	14,775	8	39,811	9	297,318
Minnesota.....	5	45,683	3	67,500	4	23,012	4	13,008	5	162,543
Iowa.....	1	3,000	1	300	1	2,000	1	1,000	1	6,700
Missouri.....	6	165,308	3	3,172	5	10,002	4	21,286	6	240,433
North Dakota.....	3	5,835	2	26,200	3	850	3	650	3	33,625
South Dakota.....	1	1,100	2	10,200	1	216	1	1,450	1	2,966
Nebraska.....	1	14,500					1	3,000	1	31,500
Kansas.....	2	37,362	2	6,150	3	3,550	2	1,075	2	47,162
South Atlantic Division:										
Delaware.....										
Maryland.....	4	25,510	2	40,386	3	5,685	2	2,400	4	75,985
District of Columbia.....	2	20,000	2	4,900	1	1,500	1	2,300	2	66,496
Virginia.....	6	15,006	5	5,472	6	1,430	6	1,726	7	35,896
West Virginia.....										
North Carolina.....	12	27,721	9	19,211	9	1,930	8	3,061	13	58,499
South Carolina.....	8	24,516	6	25,850	6	755	5	6,798	8	79,019
Georgia.....	15	74,823	14	37,587	14	3,338	13	5,303	17	126,264
Florida.....	3	8,580					1	140	3	12,541
South Central Division:										
Kentucky.....	5	28,884	2	1,766	4	6,491	4	3,742	5	45,288
Tennessee.....	1	1,800	1	3,000	2	1,075	1	2,300	2	16,475
Alabama.....	15	57,052	10	6,143	10	2,593	11	4,180	15	76,596
Mississippi.....	14	34,230	12	42,254	11	2,756	9	2,171	15	82,875
Louisiana.....	8	51,512	7	16,462	7	3,608	7	3,993	10	88,387
Texas.....										
Arkansas.....	4	75,436	5	91,100	5	10,715	5	5,215	5	184,021
Oklahoma.....	5	12,335	2	17,000	5	3,700	4	1,025	6	39,160
Western Division:										
Montana.....	1	14,500	1	22,000	1	2,500			1	39,000
Wyoming.....					3	1,665				
Colorado.....	3	67,499					3	3,700	3	73,764
New Mexico.....										
Arizona.....										
Utah.....										
Nevada.....										
Idaho.....	1	6,000	1	15,000	1	2,000	1	100	1	25,600
Washington.....										
Oregon.....										
California.....	14	284,862	9	161,377	12	56,834	13	41,362	14	567,577

¹Includes \$685,052 expended for incidentals by 199 schools.

TABLE 12.—*Instructors and students in manual and industrial training schools, public manual-training high schools, and schools of agriculture, 1913-14, including Indian schools.*

States.	Institutions.	Literary instruction.			Manual-arts instruction.		
		Instructors.	Elementary pupils.	Secondary students.	Instructors.	Elementary pupils.	Secondary students.
United States.....	479	3,829	55,631	75,762	5,259	52,285	113,965
North Atlantic Division.....	127	1,122	17,836	31,396	2,238	23,102	63,194
North Central Division.....	106	880	9,602	17,995	1,062	8,417	21,791
South Atlantic Division.....	89	639	9,767	8,659	669	6,406	10,680
South Central Division.....	101	762	10,942	9,304	661	7,963	9,165
Western Division.....	56	426	7,484	8,406	599	6,397	9,135
North Atlantic Division:							
Maine.....	1	4	.....	63	4	.....	63
New Hampshire.....	1	1	22	.....	7	309	102
Vermont.....	1	6	.....	78	6	.....	78
Massachusetts.....	40	276	3,390	5,376	660	5,494	14,105
Rhode Island.....	3	41	.....	1,637	85	1,311	2,409
Connecticut.....	5	17	244	642	56	764	699
New York.....	42	419	9,985	15,010	932	10,798	34,333
New Jersey.....	8	59	393	1,126	90	425	2,062
Pennsylvania.....	26	299	3,702	7,664	398	4,001	9,353
North Central Division:							
Ohio.....	11	133	453	3,535	186	585	4,779
Indiana.....	6	89	34	2,253	84	227	2,667
Illinois.....	12	199	754	5,314	144	628	5,899
Michigan.....	9	45	405	1,049	63	967	991
Wisconsin.....	19	70	921	1,475	137	681	2,581
Minnesota.....	12	95	2,025	1,364	119	1,473	1,397
Iowa.....	1	4	.....	50	4	.....	50
Missouri.....	7	46	58	1,985	79	36	2,000
North Dakota.....	10	74	1,811	505	93	1,171	324
South Dakota.....	11	55	1,796	104	80	1,466	93
Nebraska.....	4	28	542	110	43	403	138
Kansas.....	4	42	803	301	60	780	282
South Atlantic Division:							
Delaware.....	.....	.....	.....	.....	.....	.....	.....
Maryland.....	11	107	816	2,274	127	214	3,596
District of Columbia.....	5	45	138	1,732	85	170	2,028
Virginia.....	17	99	1,626	965	94	411	1,461
West Virginia.....	.....	.....	.....	.....	.....	.....	.....
North Carolina.....	16	81	1,399	615	94	1,204	467
South Carolina.....	9	86	1,881	397	88	1,737	443
Georgia.....	28	201	3,273	2,616	170	2,416	2,638
Florida.....	3	20	334	60	11	254	47
South Central Division:							
Kentucky.....	5	46	401	767	31	401	720
Tennessee.....	3	22	.....	144	23	.....	175
Alabama.....	22	196	3,183	2,447	130	2,183	2,247
Mississippi.....	29	179	2,540	2,229	170	1,843	2,226
Louisiana.....	16	138	2,124	1,983	98	944	2,001
Texas.....	2	42	176	706	39	176	706
Arkansas.....	5	50	559	537	47	415	599
Oklahoma.....	19	89	1,969	491	123	2,001	491
Western Division:							
Montana.....	3	15	187	150	17	145	129
Wyoming.....	1	4	175	.....	12	108	.....
Colorado.....	5	68	540	1,435	41	291	1,400
New Mexico.....	8	34	1,469	.....	57	1,469	.....
Arizona.....	9	44	1,919	.....	121	1,876	.....
Utah.....	1	2	68	.....	9	68	.....
Nevada.....	2	6	350	.....	3	187	.....
Idaho.....	2	7	163	47	13	163	47
Washington.....	3	16	690	.....	44	657	.....
Oregon.....	2	12	849	.....	24	463	10
California.....	20	218	1,074	6,776	258	970	7,549

TABLE 13.—*Number of instructors and students, by sex, in manual and industrial training schools, public manual-training high schools, and schools of agriculture, 1913-14, including Indian schools.*

States.	Literary instruction.						Manual-arts instruction.					
	Instructors.		Elementary pupils.		Secondary students.		Instructors.		Elementary pupils.		Secondary students.	
	Men.	Women.	Male.	Female.	Male.	Female.	Men.	Women.	Male.	Female.	Male.	Female.
United States.....	1,765	2,064	32,781	22,850	46,723	29,039	3,133	2,126	31,014	21,271	75,519	38,446
North Atlantic Division...	634	488	14,756	3,080	20,437	10,959	1,537	701	16,987	6,115	44,376	18,818
North Central Division...	404	476	4,768	4,834	11,926	6,069	635	457	4,633	3,884	14,327	7,464
South Atlantic Division...	253	386	3,815	5,952	5,042	3,617	351	318	2,337	4,069	6,848	3,832
South Central Division...	313	449	5,252	5,690	4,470	4,834	302	359	3,600	4,363	4,894	4,771
Western Division.....	161	265	4,190	3,294	4,848	3,560	308	291	3,557	2,840	5,574	3,561
North Atlantic Division:												
Maine.....	0	4	.....	.....	0	63	0	4	.....	.....	0	63
New Hampshire.....	1	0	22	0	.....	0	7	0	309	0	102	0
Vermont.....	5	1	.....	.....	78	0	5	1	.....	.....	78	0
Massachusetts.....	188	188	2,182	1,208	3,154	2,222	469	191	2,828	2,666	11,282	2,822
Rhode Island.....	22	19	.....	.....	1,051	486	61	24	665	646	1,782	627
Connecticut.....	14	3	344	0	390	262	39	17	656	108	417	252
New York.....	233	186	9,104	881	9,287	5,723	608	324	9,551	1,247	21,907	12,426
New Jersey.....	42	17	884	9	702	424	76	15	417	8	1,507	574
Pennsylvania.....	179	120	2,720	982	5,775	1,789	273	125	2,561	1,440	7,300	2,053
North Central Division:												
Ohio.....	79	54	216	237	2,509	1,026	93	98	318	267	2,592	2,187
Indiana.....	41	48	34	0	1,331	922	99	15	227	0	1,714	953
Illinois.....	125	74	376	378	4,331	983	115	29	338	290	5,151	728
Michigan.....	20	25	209	196	568	481	39	24	610	357	715	276
Wisconsin.....	30	40	421	500	842	633	72	65	801	380	1,195	1,366
Minnesota.....	24	71	943	1,062	871	493	69	60	718	756	814	588
Iowa.....	4	0	.....	.....	50	0	4	0	.....	.....	50	0
Missouri.....	24	22	32	26	943	962	50	29	17	19	1,648	963
North Dakota.....	18	56	876	935	243	262	50	43	578	598	200	124
South Dakota.....	13	42	904	892	50	54	26	54	751	715	44	49
Nebraska.....	8	20	285	257	54	56	20	22	212	191	77	61
Kansas.....	18	24	472	331	134	167	38	22	463	317	127	155
South Atlantic Division:												
Delaware.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maryland.....	76	31	478	338	1,707	567	106	22	149	65	2,816	780
District of Columbia.....	14	31	90	48	1,029	708	41	44	120	50	1,179	849
Virginia.....	32	67	849	1,077	401	564	56	38	141	270	935	526
West Virginia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Carolina.....	25	56	613	786	243	372	38	56	461	743	167	300
South Carolina.....	29	57	691	1,190	125	272	31	57	670	1,067	145	298
Georgia.....	76	125	1,079	2,194	1,529	1,087	78	92	758	1,658	1,595	1,043
Florida.....	1	19	15	319	8	82	2	9	38	216	11	36
South Central Division:												
Kentucky.....	23	23	183	218	566	201	18	13	183	218	539	181
Tennessee.....	9	13	.....	.....	69	75	10	13	.....	.....	103	72
Alabama.....	63	133	1,837	1,846	951	1,496	42	88	857	1,326	838	1,409
Mississippi.....	83	96	1,260	1,280	1,171	1,053	79	91	856	987	1,179	1,047
Louisiana.....	59	79	1,027	1,097	1,092	891	53	40	419	525	1,064	947
Texas.....	11	31	86	90	84	622	11	28	86	90	84	622
Arkansas.....	29	21	340	219	313	224	28	19	235	180	373	226
Oklahoma.....	36	53	1,019	940	224	267	56	67	964	1,037	224	267
Western Division:												
Montana.....	6	9	66	121	90	60	4	13	40	105	74	55
Wyoming.....	1	3	90	85	.....	.....	6	6	56	52	.....	.....
Colorado.....	7	48	290	260	734	701	22	19	135	156	729	671
New Mexico.....	20	27	891	578	.....	.....	26	31	891	578	.....	.....
Arizona.....	7	37	1,087	832	.....	.....	48	73	1,060	816	.....	.....
Utah.....	0	2	36	32	.....	.....	4	5	36	32	.....	.....
Nevada.....	1	5	170	180	.....	.....	1	2	88	99	.....	.....
Idaho.....	0	7	83	80	21	26	10	3	83	80	21	26
Washington.....	5	11	390	300	.....	.....	19	25	378	279	.....	.....
Oregon.....	3	9	501	348	.....	.....	12	12	263	200	0	10
California.....	111	107	596	488	4,008	2,773	156	102	527	443	4,750	2,799

TABLE 14.—Public manual-training high schools—Instructors and students, 1913-14.

Location.	Name of institution.	President, director, or principal.	Instructors.			Pupils.		Literary instruction.						Manual-arts instruction.											
								In- struc- tors.			Ele- men- tary pupls.			Secondary students.			In- struc- tors.			Ele- men- tary pupls.			Secondary students.		
1	2	3	Men.	Women.	Total.	Male.	Female.	Total.	Men.	Women.	Male.	Female.	Men.	Women.	Male.	Female.	Men.	Women.	Male.	Female.					
Alabama:																									
Montevallo.....	Alabama Girls Technical Institute.	Thomas W. Palmer.....	5	21	26	0	495	495	5	11	0	10	0	485	0	10	0	10	0	485	0				
California:																									
Los Angeles.....	Polytechnic Evening High School.	A. N. Hatherell.....	43	19	62	2,000	1,500	3,500	22	6			900	700	21	13			1,100	800					
Do.....	Polytechnic High School.	A. A. Dunn.....	42	54	96	1,142	944	2,086	26	44			1,101	900	16	10			1,000	800					
Oakland.....	Manual Training and Commercial High School.	Phillip M. Fisher.....	12	23	35	427	386	813	4	9			427	386	12	23			427	386					
Riverside.....	Polytechnic High School.	Hugh Law.....	17	0	17	337	0	337	14	0			235	0	3	0			102	0					
San Francisco.....	Do.	James E. Addicott.....	14	13	27	334	282	616	7	6			334	282	6	7			334	282					
San Luis Obispo.....	California Polytechnic School.	R. W. Ryder.....	16	4	20	149	42	191	16	4			149	42	16	4			149	42					
Venice.....	Polytechnic High School.*	Cree T. Work.....	5	7	12	64	86	150	3	5			64	86	2	2			64	86					
Colorado:																									
Denver.....	Longfellow Technical High School.	A. J. Fynn.....	8	10	18	142	128	270	2	7			142	128	3	3			142	128					
Do.....	Manual Training High School.	Chas. A. Bradley.....	18	28	46	407	444	851	3	18			407	444	10	10			407	444					
Stirling.....	Logan County Industrial Arts High School.	J. A. Seixson.....	11	26	37	375	370	745	7	22	260	250	85	120	3	5	135	156	80	90					
District of Columbia:																									
Washington.....	Armstrong Manual Training School (negro).	G. C. Wilkinson.....	18	11	29	177	414	591	3	4			177	414	13	6			177	414					
Do.....	McKinley Manual Training School.	Frank C. Daniel.....	25	32	57	847	285	1,132	10	24			847	285	13	10			847	285					
Georgia:																									
Atlanta.....	Technological High School.	Chas. S. Culver.....	10	0	10	370	0	370	5	0			370	0	5	0			370	0					
Columbus.....	Industrial High School.	C. A. Maupin.....	8	1	9	91	42	133	5	1			91	42	5	1			91	42					
Sandersville.....	Industrial School (negro).	T. J. Elder.....	1	4	5	110	173	283	1	4	93	148	17	25	1	4	93	148	17	25					
Illinois:																									
Chicago.....	Crane Technical High School.	W. J. Bartholf.....	56	10	66	1,592	0	1,592	34	10	57	0	1,535	0	22	0	57	0	1,535	0					
Do.....	Lane Technical High School.	Wm. J. Rogan.....	50	14	64	1,824	0	1,824	32	14			1,824	0	18	0	32	14	1,824	0					
Do.....	Lucy L. Flower Technical High School.	Dora Wells.....	2	12	14	0	287	287	2	5	0	96	0	191	0	7	0	96	0	191	0				
Do.....	Manual Training High School.	W. N. Brown.....	12	16	28	357	272	629	9	13			215	192	3	3			142	80					
Indiana:																									
Indianapolis.....	Manual Training High School.*	M. H. Stuart.....	37	44	81	1,194	919	2,113	22	40			1,180	907	15	4			800	730					
Kentucky:																									
Henderson.....	Barret Manual Training High School.*	J. H. Bentley.....	5	6	11	96	141	237	4	5			96	141	2	1			69	121					

Louisville	Manual Training High School.....	E. P. Chapin.....	21	0	21	409	0	409	13	0	.....	409	0	.....	409	0
Marquette	Baltimore Polytechnic Institute.....	William R. King.....	47	0	47	1,331	0	1,331	47	0	.....	1,331	0	.....	1,331	0
Baltimore	Calvert High School.....	Maena A. Hawkins.....	16	15	31	421	619	421	619	10	.....	421	619	10	198	421
Do.	Highland Manual Training School.....	Sydney S. Hardy.....	2	7	9	114	104	104	218	2	7	114	104	218	40	47
Eastern	Colored Industrial and Grammar School (segrg.).....	Harry J. Mack.....	2	7	9	157	184	184	341	1	6	150	175	7	55	66
Salisbury	Central Evening Industrial School.....	A. H. Morrison.....	34	0	34	780	26	786	786	3	9	.....	0	.....	780	26
Boston	High School of Practical Arts.....	Herbert S. Weaver.....	3	25	28	0	764	764	3	9	.....	0	764	0	18	0
Boston	Mechanics Arts High School.....	C. W. Parmenter, Ph. D.....	44	5	49	1,513	0	1,513	27	5	.....	1,513	0	17	0	1,463
Cambridge	Rindge Technical School.....	John W. Wood, Jr.....	20	6	26	604	0	604	10	6	.....	604	0	20	6	604
Chattanooga	Manual Training School.....	N. P. Ames Carter.....	5	5	10	160	0	160	1	5	.....	160	0	1	5	160
Newtonville	Newton Technical High School*.....	Irving O. Palmer.....	14	28	396	356	753	14	14	.....	396	356	14	14	396	0
Springfield	Technical High School.....	Charles F. Warner.....	22	27	49	631	327	958	12	19	.....	631	327	10	8	337
Michigan	Cass Technical High School.....	Benjamin F. Comfort.....	24	16	40	467	415	882	15	15	.....	467	415	9	1	288
Detroit	Hackley Manual Training School*.....	Joseph D. Bicknell.....	12	9	21	579	371	950	.....	.....	.....	.....	8	6	367	161
Muskegon	State High School.....	Bernhard Ostrolenk.....	4	15	19	202	285	487	4	7	150	200	52	4	7	150
Canby	Industrial High School.....	W. H. Lamson.....	4	12	16	175	200	375	0	2	.....	175	200	375	52	85
I'Inokley	Mechanics Arts High School.....	George Weitbrecht.....	11	25	36	650	221	871	6	22	.....	650	221	5	3	65
St. Paul	Manual Training High School.....	Porter Graves.....	27	32	59	746	966	1,712	15	18	.....	746	966	12	14	284
Kansas City	Manual Training High School.....	Clara S. Burrough.....	14	21	35	293	408	701	11	16	.....	293	408	3	5	472
New Jersey	Newark Technical School.....	Charles A. Colton.....	12	0	12	450	0	450	6	0	190	0	280	0	190	237
Newark	Manual Training High School.....	Charles D. Larkins.....	84	64	148	2,702	2,644	5,346	65	54	.....	2,702	2,644	19	10	2,702
New York	Manual Training High School.....	Anna L. Phillips.....	0	34	34	0	1,219	1,219	0	11	.....	0	325	0	23	0
Do.	Technical Evening High School*.....	Arthur S. Hurrell.....	31	0	31	798	0	798	2	0	30	0	20	0	27	0
Do.	Technical High School.....	A. L. Hurrell.....	12	12	24	698	0	698	4	11	.....	698	0	8	1	748
New York	Evening High School for Women*.....	Mary A. Coulars.....	1	27	28	1,835	1,835	1,835	1	17	.....	1,835	1,835	1	10	698
Do.	Stuyvesant High School.....	E. K. von Nordoff, Sc. D.....	128	0	128	3,396	0	3,396	90	0	.....	3,396	0	0	38	0
Ohio	East Technical High School.....	James F. Barker.....	39	28	67	1,029	493	1,522	17	19	.....	1,029	493	21	9	1,029
Cleveland	Stivers Manual Training High School.....	Wm. H. Meek.....	18	16	34	414	301	715	18	16	.....	414	301	18	16	1,414
Dayton	Manual Training High School.....	C. B. Bryant.....	5	8	13	41	102	143	4	6	.....	41	102	1	2	41
Oklahoma:	Muskogee	C. B. Fager, Jr.....	17	0	17	330	0	330	11	0	.....	330	0	6	0	330
Pennsylvania:	Harrisburg	Andrew J. Morrison,	67	0	67	1,668	0	1,668	57	0	.....	1,668	0	15	0	1,668
Philadelphia:	Ph. D.	Ronald P. Gleason.....	18	24	42	528	963	1,221	14	17	.....	528	963	4	7	205
Scranton	Technical High School.....	George F. Weston.....	35	31	66	966	449	1,415	18	19	.....	966	449	17	12	966
Rhode Island:	do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	449
Providence	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	449

*** Statistics of 1912-13.**

TABLE 15.—Public manual training high schools—Property and expenditures, 1915-14.

Location.	Name of institution.	Volumes in library.	Value of buildings and grounds.	Scientific apparatus, furniture, machinery, etc.	Permanent endowment or productive fund.	Expended for salaries of teachers.	For buildings and lasting improvements.	For new tools and repairs.	For materials.	For incidentals.	Total expenditure.
1	2	3	4	5	6	7	8	9	10	11	12
Alabama:											
Montevallo.....	Alabama Girls Technical Institute.....	6,500	\$300,000	\$8,000	\$400,000	\$16,500	\$1,000	\$500	\$900	\$300	\$19,400
California:											
Los Angeles.....	Polytechnic Evening High School.....	7,500	700,000	50,000		14,000		2,000	3,000	500	19,500
Do.....	Polytechnic High School.....	8,000	465,000	105,000		35,000		550	2,000		37,550
Oakland.....	Manual Training and Commercial High School *.....	2,000	100,000	40,000		48,900		3,301	1,732	552	57,074
Riverside.....	Polytechnic High School.....	808	350,000	23,000		3,000		6,800	1,800	120	22,147
San Luis Obispo.....	California Polytechnic School.....	23,000	220,000	46,000		35,000			14,000		54,000
San Francisco.....	Polytechnic High School.....	1,124	655,000	50,000		41,040			2,937		43,977
Venice.....	Polytechnic High School *.....	350		10,000		18,455		10,271	1,686	6,244	35,656
Colorado:											
Denver.....	Longfellow Technical High School.....										
Do.....	Manual Training High School.....	3,500	223,000	11,450		58,000		500	2,000	400	60,900
Sterling.....	Do.....	2,000	300,000	20,000		4,000		400	1,200	500	6,100
District of Columbia:											
Washington.....	Logan County Industrial Arts High School.....										
Georgia:											
Atlanta.....	Armstrong Manual Training School (negro).....	450	655,000	130,000							
Columbus.....	Do.....	1,600									
Sandersville.....	Mckinley Manual Training School.....	200	70,000	20,000		22,000	10,000	500	1,600		33,500
Illinois:											
Chicago.....	Industrial High School (negro).....	260	7,500	2,500		7,800	100	400	500	300	9,100
Do.....	Crane Technical High School.....	1,000	350,000	175,000		40,000		1,500	2,000		43,500
Do.....	Lane Technical High School.....	1,200	700,000	75,000		32,400		(1)	11,000		43,400
Do.....	Lucey L. Flower Technical High School.....	780	149,133	12,000		9,300	337	700	300		10,697
Peoria.....	Manual Training High School.....	800	500,000	60,000							
Indiana:											
Indianapolis.....	Manual Training High School *.....	4,000	800,000			55,000	5,500	3,000	3,500	500	67,500
Kentucky:											
Lexington.....	Barrett Manual Training High School *.....	600	68,900	7,000		10,800	1,266	2,048	1,076	1,905	17,095
Louisville.....	Manual Training High School.....	2,000	180,000	26,000		12,000		3,000	2,000	300	17,300
Maryland:											
Baltimore.....	Baltimore Polytechnic Institute.....	500	1,100,000	175,000							
Do.....	Colored High School.....	1,400	45,125	5,886							
Do.....	High and Manual Training School.....	1,500	30,000	600		11,960	386			704	13,685
Do.....	Colored Industrial and Grammar School (negro).....	500	20,000	1,500		1,200			1,400	1,000	3,600
Salisbury.....											

TABLE 16.—*Schools of agriculture—Instructors and students, 1913-14.*

Location.	Name of institution.	Control.	President, director, or principal.	Instructors.			Pupils.			Literary instruction.						Agricultural instruction.					
				Men.	Women.	Total.	Male.	Female.	Total.	Men.	Women.	Male.	Female.	Male.	Female.	Men.	Women.	Male.	Female.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Alabama:																					
Abbeville.....	Third District Agricultural School.....	State.....	D. W. McLean.....	3	1	4	33	34	67												
Albertville.....	Seventh District Agricultural School.....	do.....	S. L. Gibson.....	3	5	8	144	111	255												
Abens.....	Eighth District Agricultural School.....	do.....	W. M. Atkinson.....	3	1	4	68	72	140												
Blountsville.....	Ninth District Agricultural School.....	do.....	W. B. Crumpton, Jr.....	2	2	4	70	41	111												
Evergreen.....	Sixth District Agricultural School.....	do.....	W. C. Blasingame.....	2	5	7	47	60	97												
Hamilton.....	Sixth District Agricultural School.....	do.....	H. O. Sargent.....	3	3	6	146	68	214												
Jackson.....	First District Agricultural School.....	do.....	R. L. Reaven.....	3	2	5	65	63	128												
Liberville.....	Northeast Alabama Agricultural and Industrial Institute.....	do.....	Anderson C. Cusick.....	3	9	12	211	268	479												
Sylacauga.....	Fourth District Agricultural School.....	do.....	J. F. Cheatham.....	2	5	7	83	71	154												
Wetumpka.....	Fifth District Agricultural School.....	do.....	John M. Crowell.....	2	3	5	60	70	130												
Arkansas:																					
College Station.....	State Agricultural School (District 4).....	do.....	Frank Hamall.....	7	16	23	248	118	366												
Jonesboro.....	State Agricultural School (District 1)*.....	do.....	Victor C. Kays.....	5	4	9	92	63	155												
Magnolia.....	State Agricultural School (District 3)*.....	do.....	H. K. Sanders.....	8	10	18	72	68	140												
Russellville.....	State Agricultural School (District 2)*.....	do.....	George A. Cole.....	14	8	22	198	102	300												
California:																					
Gardena.....	Gardena Agricultural High School.....	Public.....	J. B. Lillard.....	10	12	22	165	155	320												
Rutherford.....	St. Josephs Agricultural Institute.....	Private.....	Bro. Thomas H. Claffy.....	5	0	5	25	0	25												
Georgia:																					
Americus.....	Third District A. and M. School.....	State.....	J. M. Collum.....	5	4	9	106	16	122												
Barnesville.....	Sixth District Agricultural School.....	do.....	J. H. Maxwell.....	4	2	6	61	38	99												
Carrollton.....	Fourth District A. and M. School.....	do.....	J. H. Nelson.....	4	2	6	85	50	135												
Clarksville.....	Ninth District Agricultural School.....	do.....	M. C. Gay.....	5	5	10	78	30	108												
Douglas.....	Tenth District Agricultural School.....	do.....	J. W. Powell.....	3	2	5	62	32	94												
Donna Hill.....	Tenth District Agricultural School.....	do.....	George White, Jr.....	4	2	6	38	23	61												
Madison.....	Eighth District A. and M. School.....	do.....	W. G. Acres.....	5	1	6	59	12	71												
Monroe.....	Fifth District A. and M. School.....	do.....	J. Henry Walker.....	5	1	6	123	44	167												
Powder Springs.....	Seventh District A. and M. School.....	do.....	J. R. Hunt.....	8	6	14	130	75	205												

Statesboro (R. F. D. 4)	First District Agricultural School *	do.	E. C. J. Dickens	5	2	7	115	98	213	5	2	24	17	24	17	5	1	91	81
Tifton	Second District A. and M. School	do.	S. L. Lewis	4	3	7	68	34	102	3	2	.....	68	34	1	1	.....	68	34
Indiana	Winona College of Agriculture	Private	J. C. Breckenridge	6	0	6	85	0	85	6	0	.....	85	0	6	0	.....	85	0
Kansas	Hill Agricultural Academy	do.	H. H. Howard	2	3	5	19	16	35	1	2	8	7	11	9	1	1	11	9
Louisiana	Claborne Agricultural School *	Public	C. P. Seab	2	1	3	32	40	72	1	1	17	30	15	10	1	0	15	5
Arizona	Gilbert Academy and Agricultural	Private	J. R. Reynolds	2	8	10	110	107	217	1	6	107	100	3	7	1	2	40	30
Baldwin	Southern University and A. and M.	State	J. S. Clark, Ph. D.	6	5	11	59	88	147	3	3	48	83	4	12	4	2	70	61
Baton Rouge	College (negro)	do.	C. B. Griffith	3	5	8	78	132	210	3	5	54	88	24	44	3	2	.....	18
Dodson	Agricultural High School *	Public	C. C. Kennedy	2	6	8	100	92	127	1	5	54	64	15	19	1	31	9	26
Goldonna	Agricultural High School *	do.	J. B. Wise	1	3	4	104	63	197	1	3	81	75	23	18	1	1	23	18
Grayson	Oak Grove State Agricultural High	do.	J. C. Blanchard	2	5	7	84	71	155	2	5	69	52	15	19	2	2	15	19
Hope Villa	School *	State	James L. Lucas	2	5	7	96	105	201	2	5	70	75	26	30	2	3	.....	26
Leesville (R. F.	Bellevue Agricultural High School *	Public	J. H. McCollister	3	11	14	199	211	400	3	11	168	187	21	24	2	0	16	36
D.)	Agricultural High School	do.	J. S. Pullen	2	4	6	57	44	101	2	4	42	30	15	14	2	1	.....	15
Merryville	Agricultural High School *	do.	H. F. Smullin	2	4	6	61	78	139	2	3	55	62	6	16	2	1	.....	15
Stonewall	Livingston Parish Agricultural High	do.	W. R. C. Connick	2	2	4	19	26	45	2	2	.....	19	26	2	2	.....	19	26
Walker	School	do.	G. O. Mudge	4	4	8	70	80	150	4	4	53	55	17	25	2	1	.....	10
Maryland:	Aggricultural High School	do.	Nona L. Parks	2	4	6	68	69	137	2	2	48	51	20	18	2	2	.....	15
Baden	do.	do.	Alfred B. McVey	3	1	4	33	18	51	2	1	.....	33	18	2	0	.....	33	18
Preston	do.	do.	Herbert N. Loomis	6	7	13	59	84	143	0	2	31	53	28	23	6	5	31	53
Ridgely	do.	do.	James P. Reed	2	2	4	58	61	119	2	2	40	42	18	19	2	2	.....	11
Rising Sun (R.	Smith's Agricultural School and	Private	Dr. W. O. Earle	3	0	3	20	10	30	3	0	.....	20	10	3	0	.....	20	10
F. D. 2)	Northampton School of Industries	Public	A. E. Pickard	3	2	5	31	29	60	0	1	.....	31	29	3	1	.....	31	29
Massachusetts:	Agricultural High School *	do.	C. G. Selvig	5	25	30	541	672	1213	5	25	449	564	92	108	4	2	103	97
Northampton	Chippewa County School of Agricul-	do.	E. G. Higbee	9	6	15	112	25	137	0	2	.....	57	49	4	3	.....	184	62
Petersham	tural and Domestic Science.	do.	J. E. Gibson	9	5	9	57	49	106	0	2	.....	57	49	4	3	.....	12	25
Michigan:	Menominee County School of Agricul-	do.	Frank M. Drake	2	6	8	125	150	275	2	6	80	89	44	62	2	6	80	89
McCarron	tural and Domestic Science.	do.	J. D. Cork	2	3	5	54	31	85	2	2	14	0	40	31	2	2	.....	40
Menominee	do.	do.	.....	2	1	3	35	29	64	2	1	.....	35	29	2	1	.....	35	29
Minnesota:	Associated Schools of Agriculture	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cokato	Northwest School of Agriculture *	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crookston	West Central School and Station	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris	do.	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mississippi:	Jasper County Agricultural High	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bay Springs	School	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penton	Yazoo County Agricultural High	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Benton	School	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Buena Vista	Chickasaw County Agricultural High	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	School	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Statistics of 1912-13.

TABLE 16.—*Schools of agriculture—Instructors and students, 1913-14—Continued.*

Location.	Name of Institution.	Control.	President, director, or principal.	Instructors.			Pupils.			Literary instruction.						Agricultural instruction.					
										In-structors.		Elemen-tary pupils.		Second-ary stud-ents.		In-structors.		Elemen-tary pupils.		Second-ary stud-ents.	
										Men.	Women.	Total.	Male.	Female.	Total.	Male.	Female.	Men.	Women.	Total.	Male.	Female.	Men.	Women.	Total.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Mississippi—Contd.																					
Camden.....	Madison County Agricultural High School.*	Public...	J. M. Rigby.....	1	3	4	37	30	67								3				
Cleveland.....	Bolivar County Agricultural High School.	do.....	A. K. Eckles.....	3	2	5	56	47	103								3	2			
Courtland.....	Panola County Agricultural High School.*	do.....	M. E. Moorhead.....	3	1	4	53	28	81								3	1			
Derna.....	Calhoun County Agricultural High School.	do.....	V. V. Eason.....	2	6	8	118	101	219								2	6	91	84	27
Ellisville.....	Jones County Agricultural High School.	do.....	F. J. Hubbard.....	4	3	7	110	75	185								2				
Goodman.....	Holmes County Agricultural High School.	do.....	G. H. Love.....	3	5	8	83	60	143								3	3	48	37	35
Kossuth.....	Alcorn County Agricultural High School.	do.....	Hal Anderson.....	2	2	4	115	127	242								4	4	70	80	45
Lena.....	Leake County Agricultural High School.	do.....	T. J. Barnett.....	1	1	2	53	51	104								2	0			
Longview.....	Okfuskee County Agricultural High School.	do.....	J. A. Lamb.....	3	6	9	101	94	195								3	2	64	60	37
Mashulaville.....	Noxubee County Agricultural High School.	do.....	O. I. Poldexter.....	2	5	7	52	41	93								2	2	31	31	21
Mendenhall.....	Simpson County Agricultural High School.	do.....	Monroe F. Ball.....	2	4	6	41	95	136								2	4			
Moorhead.....	Sunflower County Agricultural High School.	do.....	J. W. Sargent.....	3	5	8	99	81	180								3	2	64	42	50
Oakland.....	Yalobusha County Agricultural High School.	do.....	T. C. Bradford.....	2	3	5	70	80	150								2	3			
Olive Branch.....	De Soto County Agricultural High School.	do.....	W. D. Gooch.....	2	2	4	50	45	95								2	2	8	7	42
Pertinaston.....	Harrison County Agricultural High School.	do.....	J. A. Huff.....	3	3	6	69	39	107								3	3	15	12	53
Pebea.....	Clay County Agricultural High School.	do.....	E. R. Strahan.....	2	4	6	58	54	114								1	1			
Poplarville.....	Pearl River County Agricultural High School.	do.....	W. Jacobs.....	6	2	7	67	60	117								2	1			

Kemper County Agricultural High School.	W. S. Huddleston.....	3	2	5	97	70	167	3	2	40	20	57	50	2	0	.....	57	50		
Jefferson County Agricultural High School.*	do.....	2	2	4	71	59	130	2	2	51	46	20	13	2	0	.....	20	13		
Missouri:																				
Bartlett Agricultural and Industrial School.	Private.	W. K. Jones.....	4	3	7	67	41	108	2	2	32	26	44	26	2	3	17	19	11	14
Nebraska:																				
Curtis.....	State.....	C. V. Williams.....	5	4	9	56	58	114	2	2	.....	.....	53	50	3	2	.....	.....	56	52
New Jersey:	Private.	Louis J. Cohen.....	11	0	11	101	0	101	11	0	101	0	.....	.....	11	0	101	0	.....	.....
Woodbine.....	State.....	W. J. Wright.....	17	4	21	138	55	193	2	1	.....	.....	138	55	15	3	.....	.....	138	55
New York:	do.....	Almon Gunnison, D. D.,	7	5	12	78	57	135	2	2	.....	.....	78	50	5	3	.....	.....	78	57
Alfred.....	Private.	Brother Barnabas.....	11	0	11	330	0	330	6	0	230	0	5	0	5	0	230	0	5	0
Canton.....	do.....	T. S. Inborden.....	6	13	19	172	180	352	3	5	105	101	13	31	3	5	105	101	13	31
Lincolndale.....	do.....	H. B. Allen.....	4	3	7	28	15	43	1	1	28	15	.....	.....	3	2	28	15	.....	.....
North Carolina:	do.....	Hugh A. Dobbin.....	2	0	2	28	0	28	.....	.....	.....	.....	.....	.....	2	0	8	0	12	0
Briels.....	do.....	Dr. E. F. Green.....	2	4	6	101	109	210	2	4	67	64	35	44	2	0	23	27	17	18
Leatherman.....	do.....	do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Legerwood.....	do.....	do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Star.....	do.....	do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Dakota:																				
Beech.....	State	C. J. M. Nelson.....	5	10	15	197	192	389	3	8	154	143	43	49	2	2	24	20	15	4
Carlington.....	do.....	Alfred L. Schafer.....	6	13	19	175	215	390	4	12	140	105	35	50	2	2	50	60	22	36
La Moure.....	do.....	J. S. Bjornson.....	4	14	18	151	158	309	3	14	110	114	41	44	2	0	32	0	23	2
Park River.....	do.....	William A. Broytes.....	3	3	6	65	46	111	2	2	.....	.....	65	46	1	0	.....	.....	65	8
Velva.....	do.....	A. N. Detmer.....	5	5	10	118	183	301	3	3	100	140	18	43	5	5	100	140	18	43
Oklahoma:																				
Broken Arrow.....	do.....	Elkin B. Hinchaw.....	5	4	9	42	65	107	2	2	0	7	42	58	3	2	0	7	42	58
Goodwell.....	do.....	S. W. Black.....	7	2	9	30	69	149	7	2	24	24	56	45	1	1	24	24	56	45
Lawton.....	do.....	E. M. Frost.....	4	9	13	44	117	.....	4	3	45	32	30	12	1	1	45	32	30	12
Tishomingo.....	do.....	R. M. McCool.....	5	0	5	67	44	111	3	9	31	20	36	24	2	0	31	20	36	24
Warner.....	do.....	J. S. Malone.....	6	2	8	29	28	58	6	2	10	10	19	19	6	2	10	10	19	19
Pennsylvania:																				
Amble.....	Private.	Jessie T. Morgan.....	2	1	3	0	31	31	2	1	.....	.....	0	31	2	1	.....	.....	0	31
Downingtown.....	do.....	Wm. A. Credit.....	5	4	9	153	30	183	5	4	110	25	43	5	5	4	110	25	43	5
Farm School.....	do.....	John H. Washburn, Ph.D.	6	2	8	136	0	136	6	2	.....	.....	136	0	6	2	.....	.....	136	0
South Carolina:																				
Frogmore.....	do.....	Rossa B. Cooley.....	9	13	22	135	171	306	2	6	135	171	.....	.....	7	9	135	171	.....	.....
Tennessee:																				
Brunswick.....	do.....	S. H. Starr.....	4	2	6	38	28	66	4	2	.....	.....	38	28	3	0	.....	.....	38	1

*Statistics of 1912-13.

TABLE 16.—*Schools of agriculture—Instructors and students, 1913-14—Continued.*

Location.	Name of institution.	Control.	President, director, or principal.	Instructors.				Pupils.				Literary instruction.				Agricultural instruction.			
				Men.	Women.	Total.		Male.	Female.	Total.		Men.	Women.	Male.	Female.	Men.	Women.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Tennessee—Contd.																			
Madison.....		Private	E. A. Sutherland, M. D.	5	11	16	31	47	78	5	11	.....	.....	31	47	5	11	.....	.....
Vermont:		State.....	G. Leland Green.....	5	1	6	78	0	78	5	1	.....	.....	78	0	5	1	.....	.....
Virginia:		Public..	Lindsay Crowley.....	1	9	10	179	210	389	1	9	141	170	38	40	1	9	.....	.....
Appomattox.....		do.	I. J. Stanley.....	1	6	7	63	92	155	1	6	50	75	13	17	1	2	.....	.....
Burkeville.....		do.	F. A. Hodge.....	2	8	10	130	155	285	2	7	90	110	40	40	2	1	35	40
Chester.....		Private.	L. O. Grady.....	4	4	8	29	34	63	4	4	20	30	9	4	2	1	20	30
Dinwiddle.....		Public..	R. L. Wiley.....	2	4	6	83	73	156	2	2	50	52	33	21	2	2	.....	.....
Elk Creek.....		do.	R. A. Lowry.....	2	5	7	74	84	158	2	2	47	53	37	32	2	2	.....	.....
Forest Depot.....		do.	Geo. W. Guy.....	2	14	16	222	284	506	2	6	149	157	73	177	2	6	.....	.....
Hampton.....		do.	C. H. Yarbrough.....	2	5	7	49	79	128	1	4	15	23	37	54	2	2	15	23
Manassas.....		State..	E. M. Hunter.....	2	4	6	86	105	191	2	2	65	66	21	29	2	1	.....	.....
Lebanon.....		Public.	J. O. Beard.....	2	7	9	111	140	251	2	7	98	119	13	21	2	2	.....	.....
Middletown.....		do.	Theo. Soraner.....	4	2	6	50	16	66	4	2	.....	.....	50	16	4	2	.....	.....
Menominee.....		do.	T. H. Camplan.....	1	3	4	87	19	106	0	1	.....	.....	37	19	1	2	.....	.....
Onalaska.....		do.	John A. James.....	4	2	6	45	35	80	2	2	.....	.....	45	35	4	2	.....	.....
Rochester.....		do.	F. J. Slevers.....	10	3	13	114	85	199	1	2	.....	.....	114	85	9	2	.....	.....
Wauwatosa.....		do.	P. J. Gunderson.....	3	1	4	25	22	47	1	0	.....	.....	25	22	2	1	.....	.....
Winneconne.....		do.																	

* Statistics of 1912-13.

TABLE 17.—Schools of agriculture—Property and expenditures, 1913-14.

Location.	Name of institution.	Volumes in library.	Value of buildings and grounds.	Scientific apparatus, furniture, machinery, etc.	Permanent endowment, or productive funds.	Expenditures for salaries of teachers.	For buildings and lasting improvements.	For new tools and repairs.	For materials.	For incidents.	Total expenditures.
1	2	3	4	5	6	7	8	9	10	11	12
Alabama:											
Adelphi.	Third District Agricultural School.	500	\$25,000	\$2,000							
Albertville.	Fourth District Agricultural School.	1,500	15,000	300							
Anniston.	Fifth District Agricultural School.	300	8,000	1,000							
Birmingham.	Sixth District Agricultural School.	250	20,000	1,000							
Enterprise.	Seventh District Agricultural School.	250	15,000	1,500							
Florence.	Eighth District Agricultural School.	600	7,000	400							
Jackson.	Ninth District Agricultural School.	500	3,000	1,800							
Lineville.	First District Agricultural School.	500	3,000	1,800							
Mobile.	Second District Agricultural School.	300	30,000	500							
Opelika.	Third District Agricultural School.	1,800	50,000	500							
Prichard.	Fourth District Agricultural School.	1,800	50,000	500							
Rockledge.	Fifth District Agricultural School.	300	30,000	500							
Union.	Sixth District Agricultural School.	1,800	50,000	500							
Wetumpka.	Seventh District Agricultural School.	300	30,000	500							
Arkansas:											
College Station.	State Agricultural School (District 1).	200	270,000	6,000							
Jonesboro.	State Agricultural School (District 2).	1,700	150,000	15,000							
Magnolia.	State Agricultural School (District 3).	1,200	180,000	3,000							
Russellville.	State Agricultural School (District 4).	250	120,000	2,500							
California:											
Gardena.	Gardena Agricultural High School.	1,000	75,000	15,000							
Rutherford.	St. Joseph's Agricultural Institute.	150	200,000	20,000							
Georgia:											
Americus.	Third District A. and M. School.	258	60,000	600							
Barnesville.	Sixth District Agricultural School.	400	50,000	1,500							
Carrollton.	Fourth District A. and M. School.	400	100,000	300							
Clarksville.	Ninth District Agricultural School.	500	51,000	700							
Douglas.	Tenth District Agricultural School.	500	82,000	2,500							
Granite Hill.	Eleventh District Agricultural School.	100	50,000	3,000							
Madison.	Twelfth District Agricultural School.	350	75,000	2,000							
Monroe.	Fifth District A. and M. School.	500	62,000	4,065							
Powder Springs.	Seventh District A. and M. School.	400	60,000	2,000							
Statesboro (R. F. D. 4).	First District Agricultural School.	200	150,000	450							
Tifton.	Second District A. and M. School.	550	100,000	12,000							
Indiana:											
Winona Lake.	Winona College of Agriculture.	550	100,000	12,000							

* Statistics of 1912-13.

TABLE 17.—Schools of agriculture—Property and expenditures, 1913-14—Continued.

Location.	Name of institution.	Volumes in library.	Value of buildings and grounds.	Scientific apparatus, furniture, machinery, etc.	Permanent endowment, or productive funds.	Expended for salaries of teachers.	For buildings and lasting improvements.	For new tools and repairs.	For materials.	For incidentals.	Total expenditures.
1	2	3	4	5	6	7	8	9	10	11	12
Kansas:											
Downs.....	Hill Agricultural Academy.....	400	\$12,000	\$100							
Louisiana:											
Arizola.....	Claborne Agricultural School *.....	35	2,000	100		\$1,000		\$25	\$200	\$25	\$1,250
Baldwin.....	Gilbert Academy and Agricultural College (negro) *.....	1,500	77,000	5,000	\$47,000	1,500		200	150	40	1,990
Baton Rouge.....	Southern University and A. and M. College (negro).....	2,852	78,000	9,522							
Dodson.....	Agricultural High School *.....	518	13,000	1,750			\$1,500				1,500
Goldonna.....	Agricultural High School.....	500	12,000	700		1,200		300	208	375	2,500
Grayson.....	Agricultural High School *.....	150	4,500	150			2,500				
Hopk Villa.....	Oak Grove State Agricultural High School *.....	61	12,000	600							
Leesville (R. F. D.).....	Bellevue Agricultural High School *.....	70	6,800	50		9,680	683	623	755	400	12,000
Merryville.....	Agricultural High School.....	200	25,000	5,254							
Stonewall.....	Agricultural High School *.....										
Walker.....	Livingston Parish Agricultural High School.....	119	3,115	1,350							
Maryland:											
Beden.....	Agricultural High School.....	415	15,000	1,500							
Freston.....	do.....	138	2,500	250							
Ridgely.....	do.....	223	20,000	250							
Rising Sun (R. F. D.).....	Calvert Agricultural High School.....	190		450							
Massachusetts:											
Northampton.....	Smith's Agricultural School and Northampton School of Industries.....	100	76,000	16,500	260,663	19,038	2,773	892	5,220	3,798	31,719
Petersham.....	Agricultural High School *.....	43	30,000	200							
Michigan:											
McClure.....	Chippewa County School of Agriculture *.....	80	35,000	2,700							
Menominee.....	Menominee County School of Agriculture and Domestic Science.....	207	63,000	4,400		4,720	250	35	60	50	5,115
Minnesota:											
Colfax.....	Associated Schools of Agriculture.....	1,000	40,000	10,000		3,700	2,500	600	800	400	8,000
Crookston.....	Northwest School of Agriculture *.....	400	325,000	40,000		27,000	65,000	15,000	800	12,000	119,800
Morris.....	West Central School and Station.....	1,386	267,360	23,110		8,738		7,302	11,308		27,408
Mississippi:											
Jasper.....	Jasper County Agricultural High School.....	40	7,500	500							
Benton.....	Yazoo County Agricultural High School.....										

[illegible]

*** Statistics of 1912-13.**

TABLE 17.—*Schools of agriculture—Property and expenditures, 1913-14—Continued.*

Location.	Name of institution.	3	4	5	6	7	8	9	For ma- terials.	For incl- dentals.	Total expendi- tures.
1	2	3	4	5	6	7	8	9	10	11	12
Pennsylvania:											
Ambley.	Pennsylvania School of Horticulture for Women.	1,000	53,100	9,000		6,872	1,712	1,460	2,188	139	12,380
Downton.	Industrial and Agricultural School (negro).	5,400	97,000	17,800	90,000						
Farm School.	National Farm School.										
South Carolina:											
Frogmore.	Penn Normal Industrial and Agricultural School.	2,831	51,139	8,484		4,504			5,923	1,261	11,688
Tennessee:											
Brunswick.	Bolton College Agricultural High School.	1,300	100,265	9,631	60,000			600			
Madison.	Nashville Agricultural and Normal Institute.	1,860	30,000	1,200			3,000			7,500	11,100
Vermont:											
Randolph Center.	Vermont State School of Agriculture.	5,000	40,000	5,000							
Virginia:											
Appomattox.	Agricultural High School.	1,000	25,000	1,500			2,500				2,500
Burkeville.	Hoviak Agricultural High School.	300	20,000	400							
Chester.	Third District Agricultural High School.	190	22,000	4,100							
Dinwiddie.	Agricultural and Industrial School (negro).	430	25,000	1,000							
Elk Creek.	Elk Creek Training School.	400	18,000	1,000							
Forest Depot.	New London Academy.	100	20,000	5,000							
Hampton.	Agricultural High School (West End Academy).	900	65,000			1,855	175	65	120		2,215
Manassas.	Agricultural High School.	1,050	8,100	2,000		900	1,000	100	100	25	2,125
Lebanon.	Lebanon State School.	200	25,000	1,000							
Middletown.	Agricultural High School.	100	17,500	1,000							
Wisconsin:											
Menominee.	Dunn County School of Agriculture.										
Onalaska.	LaCrosse County School of Agriculture and Domestic Economy.	1,200	60,000	10,000		7,400	500	100	800	1,200	10,000
Rochester.	Racine County School of Agriculture and Domestic Economy.	300	40,000	10,000		8,000	2,000	2,000	1,500	1,000	14,500
Wauwatosa.	Milwaukee County School of Agriculture and Domestic Economy.	999	267,600	43,138		1,600	2,000		600	400	4,600
Winneconne.	Winnebago County School of Agriculture and Domestic Economy.	452	40,000	2,000		22,263	2,263	2,643	17,535	19,377	65,031
						5,092		470	207	2,706	8,655

* Statistics of 1912-13.

TABLE 18.—Manual and industrial training schools—Instructors and students, 1913-14.

Location.	Name of institution.	President, director, or principal.	Instructors.			Pupils.			Literary instruction.						Manual-arts instruction.								
			Men.		Women.	Total.		Male.		Female.	Total.	Instructors.		Elementary pupils.		Second-ary students.		Instructors.		Elementary pupils.		Second-ary students.	
														Male.	Female.	Male.	Female.			Male.	Female.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
Alabama:																							
Benson.....	Kowolga Academic and Industrial Institute (negro).....	W. Rutherford Banks.....	5	5	10	80	95	175	3	4	78	91	2	4	2	2	43	59	2	4			
Birmingham.....	St. Mark's Academic and Industrial School (negro)*.....	Rev. C. W. Brooks.....	0	6	6	38	212	250	0	3	33	167	5	45	0	3	33	167	5	45			
Brewton.....	Downing Industrial School.....	Rev. J. M. Shofner.....	0	6	6	0	122	122	0	4	0	48	0	74	0	4	0	48	0	74			
Camp Hill.....	Southern Industrial Institute *.....	Lyman Ward.....	4	9	13	71	37	108	4	9	12	10	44	20	4	9	12	10	49	20			
Centerville.....	Centerville Industrial Institute (negro).....	Henry D. Davidson.....	1	2	3	68	60	128	1	2	54	46	10	18	1	2	54	46	10	18			
Greenville.....	Lomax Hannon High and Industrial Institute (negro).....	J. R. Wingfield.....	3	6	9	125	150	275	3	6	80	120	45	30	3	6	80	120	45	30			
Miller's Ferry...	Millers Ferry Normal and Industrial School (negro).....	C. H. Johnson, D. D....	5	8	13	152	200	352	5	8	153	160	13	26	5	8	100	160	13	26			
Mobile.....	Emerson Institute (negro)*.....	William B. Smith.....	4	9	13	119	214	333	3	7	110	170	9	88	1	8	90	130	8	9			
Selma.....	Knox Academy (negro).....	W. J. Sanderson.....	3	19	22	370	516	886	2	15	358	496	12	20	1	8	74	105	12	20			
Talladega.....	Talladega College (negro).....	J. M. P. Metcalf.....	15	29	44	299	369	668	12	25	192	252	106	104	4	6	163	233	62	80			
Wauha.....	Mount Meigs Colored Institute.....	Cornelia Bowen.....	1	6	7	45	60	105	0	5	40	48	5	12	1	2	40	48	5	12			
Arkansas:																							
Dermott.....	Southeastern Baptist Industrial Academy (negro)*.....	Rev. I. G. Bailey.....	3	3	6	43	92	135	3	3	40	82	3	10	2	3	20	60	3	10			
California:																							
Oakland.....	Polytechnic College of Engineering.....	H. C. Ingram.....	11	0	11	300	0	300															
San Francisco.....	Bestis Art School.....	A. W. Best.....	1	1	2	30	26	56															
Do.....	California School of Mechanical Arts.....	Geo. A. Merrill.....	9	6	15	294	15	309	2	4													
Do.....	Cogswell Polytechnical College.....	Geo. B. Miller.....	9	6	15	170	128	298	3	3													
Do.....	Head's School of Mining and Engineering.....	Edward P. Head.....	13	0	13	450	0	450															
Do.....	Lux School of Industrial Training.....	Geo. A. Merrill.....	1	9	10	0	161	161	0	3													
Do.....	Wilmerding School of Industrial Arts.....	do.....	12	3	15	215	0	215	2	1													

* Statistics of 1912-13.

TABLE 18.—Manual and industrial training schools—Instructors and students, 1913-14—Continued.

Location.	Name of institution.	President, director, or principal.	Instructors.			Pupils.			Literary instruction.						Manual-arts instruction.					
			Men.		Total.	Women.		Total.	Men.		Total.	Women.		Total.	Men.		Total.	Women.		Total.
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Colorado:																				
Comstock.	Denver School of Trades (publie).	W. C. Borst.	5	0	5	56	0	56	1	0			56	0	4	0			56	0
Conestoga.	State Trade Education Shop.	James F. Johnson.	10	4	14	199	48	247							10	4	199	48		
Bridgeport.	Hillier Institute.	Walter S. Paine.	24	2	26	745	0	745	9	0	344	0	187	0	15	2	344	0	214	0
Harford.	State Trade Education Shop.*	F. J. Trinder.	6	4	10	113	60	173							6	4	113	60		
New Britain.	Manual Training and Industrial School	F. S. Hitchcock.	7	10	17	133	252	385	2	3			133	252	5	7			133	252
New London.	Yale & Towne Manufacturing Co. School.	A. F. Bardwell.	3	0	3	70	0	70	3	0			70	0	3				70	0
Stamford.																				
District of Columbia:																				
Takoma Park.	Bliss Electrical School.	Louis D. Bliss.	10	0	10	155	0	155							10	0			155	0
Washington.	National School of Domestic Arts and Sciences.	Mary Arline Zurborst.	0	16	16	0	150	150							0	16			0	150
Do.	Industrial Home School.*	C. W. Skinner.	5	12	17	151	80	231	1	3	90	48	5	4	5	12	120	50		
Florida:																				
Daytona.	Daytona Industrial School (negro).	Mary McLeod Bethune.	1	8	9	0	118	118	0	5	0	93	0	25	1	3	0	93	0	25
De Funiak.	Thomas Industrial Institute.	J. T. Littleton.	2	5	7	70	38	108	1	3	15	11	8	18	1	2	38	16	11	5
Jacksonville.	Boylan Home Industrial Training School (negro).	Bertha E. Losee.	0	15	15	0	224	224	0	11	0	216	0	9	0	4	0	107	0	6
Georgia:																				
Albany.	Albany Bible and Manual Training Institute (negro).	J. W. Holley.	6	9	15	109	196	305	3	7	98	144	7	35	3	3	12	31	7	35
Arcadia.	Dorchester Academy (negro).	J. F. de Castro.	3	10	13	117	205	322	1	5	105	198	12	47	2	5	105	198	12	47
Athens.	Knox Institute and Industrial School (negro).*	L. S. Clark, A. M.	3	10	13	127	248	375	3	9	99	204	28	44	3	4	22	84	28	44
Atlanta.	Apprentice School of Foote & Davies Co.	Ralph O. Powell.	8	0	8	25	0	25	2	0			25	0	6	0			25	0
Do.	Spelman Seminary (negro).	Lucy H. Tapley.	0	42	42	0	703	703	0	23	0	437	0	226	0	19	0	332	0	188
Brunswick.	Selden Normal and Industrial Institute (negro).*	Henry A. Bleach.	4	6	10	82	121	203	3	6	51	81	31	40	4	6	30	55	16	35

TABLE 18.—Manual and industrial training schools—Instructors and students, 1913-14—Continued.

Location.	Name of institution.	President, director, or principal.	Instructors.		Pupils.			Literary instruction.						Manual-arts instruction.							
			Men. Women. Total.		Male. Female. Total.			Instructors.			Elementary pupils.			Instructors.			Elementary pupils.			Secondary students.	
								Men.	Women.	Total.	Male.	Female.	Total.	Men.	Women.	Total.	Male.	Female.	Total.	Men.	Women.	Total.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Maryland:																					
Annapolis Junction.	National Junior Republic.....	Summerfield Baldwin...	2	1	3	48	3	51	2	1	34	0	14	3	2	0	34	0	14	3	
Baltimore.	Maryland Institute for the Promotion of Mechanic Arts.	John M. Carter.....	33	6	39	1,132	227	1,359							33	6				1,132	227
Massachusetts:	McDonough School.....	Morgan H. Bowman, Jr.	9	0	9	147	0	147	7	0	119	0	28	0	3	0	60	0	12	0	
Haverly.	Beverly Independent Industrial School.*	William P. Taylor.....	5	0	5	77	0	77							5	0				77	0
Boston.	Boston Y. W. C. A. School of Domestic Science.	A. Josephine Farehand..	1	9	10	0	260	260							1	9	0	200	0	60	
Boston (Jamaica Plain).	Elliot School.....	Robert H. Richards.....	3	2	5	59	55	114							3	2	18	23	41	32	
Boston.	Franklin Union.....	Walter B. Russell.....	53	0	53	1,674	0	1,674							53	0				1,674	0
Do.	Hawley School of Engineering Corporation.	Thomas Hawley.....	8	0	8	505	0	505							8	0				505	0
Do.	Hebrew Industrial School.*	Louis Hecht, Jr.....	0	11	11	0	270	270							0	11	0	200	0	10	
Do.	Independent Evening Industrial School.*	A. H. Morrison.....	31	0	31	931	22	953							31	0				931	22
Do.	Industrial School for Boys.*	William C. Crawford.....	11	0	11	169	0	169							11	0				169	0
Do.	Massachusetts Charitable Mechanic Association Trade School.	John W. Wood, Jr.....	10	0	10	200	0	200							10	0				200	0
Do.	School of the Museum of Fine Arts.	Thomas Allen.....	11	3	14	65	167	232							11	3				65	167
Do.	Trade School for Girls.	Florence E. Leadbetter.....	0	24	24	0	799	799							0	24	0	234	0	533	
Do.	Wentworth Institute.	Arthur L. Williston.....	30	0	30	933	0	933							30	0				933	0
Dorchester.	Daily Industrial School.		0	8	8	0	87	87							0	8	0	5	0	67	0
Fall River.	Bradford Durfee Textile School.*	Leonine Lincoln.....	34	0	34	262	61	323							11	0				80	6
Lawrence.	Independent Industrial School.	Edgar A. Winters.....	17	27	44	494	934	1,428							17	27	44	403	408	841	48
Lowell.	Lowell Industrial School.*	Thomas F. Fisher.....	9	6	15	165	101	266							8	4				165	101
Do.	Lowell Textile School.	Alexander G. Cunnock.....	27	1	28	740	18	758							27	1		740	18		

New Bedford	New Bedford Industrial School	Arthur S. Allen	25	22	47	549	874	1,423	4	3	191	166			25	22	535	874	14	0
Do.	New Bedford Textile School	William E. Hixon	30	40	37	978								30	0	484	0	494	0	
Newtownville	Newton Vocational School (State)	Michael W. Murray	16	12	28	378	115	363	5	5		217	145	11	7	128	125	217	145	
North Attleboro	Independent Industrial School	Robert J. Fuller	1	1	3	143	262	406						1	3	106	109	38	103	
New Hampshire	Hill Institute	Frank F. Lane	1	3	4															
(Florence Sta.)																				
Somerville	Boys Vocational School	Harry L. Jones	4	0	4	73	0	73	2	0		73	0	2	0	0	0	73	0	
Do.	Vocational School for Girls	Mary H. Brown	0	10	10	0	85	88	0	2	0	40	0	8	0	0	0	40	0	
Springfield	Evening School of Trades	Charles F. Warner	17	7	24	518	196	712						17	7	0	518	196	0	
Do.	Springfield Vocational School	Erbert E. MacVary	8	0	8	0	114	1	0	107	0	17	0	8	0	107	0	17	0	
Westham	Walsham H. Swain	Eugene H. Swain	2	0	2	28	0	28	0					2	0	0	28	0	0	
West Lynn	General Electric Co. of America	Magnus H. Alexander	14	0	14	705	0	705	5	0		339	0	9	0	0	339	0	0	
Worcester	Boys Trade School (State)	Elmer H. Fish	41	2	43	1,174	0	1,174						41	2	0	1,174	0	65	
Do.	Domestic Science School	Mrs. F. A. Wethered	3	9	12	0	65	65						3	9	0	65	0	65	
Do.	Girls Trade School (State)	Helen R. Hildreth	0	23	23	0	208	208	0	9	0	103	0	103	0	9	0	103	0	
Michigan																				
Cedar Lake	Cedar Lake Academy	J. G. Lamson	2	2	4	27	34	61	2	2	16	14	11	10	2	2	16	14	11	
Muskegon	Wyman's School of the Woods	T. B. Wyman	0	0	3	21	0	21						0	0	3	0	21	0	
Saginaw (West Side)	Arthur Hill Trade School *	G. G. Eggert	2	2	4	39	17	56	0	1		39	17	2	1			39	17	
Three Rivers	Sheffield Car Co. Apprentice School	Daniel S. Henrie	1	0	1	34	23	57						2	0	34	0	23	0	
Minnesota																				
Minneapolis	Minneapolis School of Art	Joseph Breck	4	6	10	91	148	239						4	6			91	148	
St. Paul	St. Paul Institute School of Art *	Lee W. Zeigler	6	2	8	99	55	154						6	2			99	55	
Mississippi																				
Edwards	Southern Christian Institute (negro)	J. B. Lehman	2	5	7	100	111	211	2	5	84	88	16	23	2	5	84	88	16	
Greenville	Greenville Home Industrial Institute (negro)	W. T. Burnside	4	12	16	249	183	432	4	12	162	142	87	41	4	12	162	142	87	
Holly Springs	Mississippi Industrial College (negro)	Frank H. Rodgers	6	5	11	156	214	370	6	5	128	179	28	35	6	5	128	179	28	
Jackson	Jackson College (negro)	Zechariah T. Hubert	6	10	16	89	109	198	1	3	49	64	23	42	4	5	36	69	16	
Meridian	John School (negro)	V. S. Ledbetter	3	6	9	95	190	1	1	3	60	75	35	20	1	0	75	0	20	
Oklaoma	Oklaoma Industrial School (negro)	Wallace A. Battle	12	9	21	188	143	312	12	9	143	122	23	22	12	9	143	122	23	
Winona	Grenada-Zion College (negro)*	G. W. Hall	2	3	5	50	100	130	2	3	44	52	6	8	2	3	19	17	8	
Missouri																				
St. Louis	Academy of Architecture and Industrial Science	Henry Maack	1	1	2	42	2	44						1	1			42	2	
Do.	David Ranken, Jr., School of Mechanical Trades	Lewis Gustafson	24	0	24	892	0	892						24	0			892	0	
Do.	Manual Training School of Washington University	W. R. Vickroy, Ph. B.	12	2	14	153	0	153	7	2		153	0	5	0			153	0	
Do.	St. Louis School of Fine Arts	E. H. Wuegipel	6	5	11	78	213	291						6	5			78	213	
Do.	St. Philomena's Technical School	Sister L. Doherty	0	6	6	0	87	87						0	6			0	87	
Montana	Billings Polytechnic Institute	Lewis T. Eaton	8	4	12	90	60	150	6	2		90	60	2	2			74	55	
Polytechnic																				
Nebraska	Tarbox and Gordon Watchmaking School	A. B. Tarbox	2	0	2	20	3	23						2	0			20	3	
Omaha																				
New Hampshire	Morrill School of Mechanic Arts *	Arthur W. French	7	0	7	411	0	411	1	0	22	0		7	0	309	0	102	0	
Concord																				

* Statistics of 1912-13.

TABLE 18.—*Manual and industrial training schools—Instructors and students, 1913-14—Continued.*

Location.	Name of institution.	President, director, or principal.	Instructors.			Pupils.			Literary instruction.						Manual-arts instruction.					
			Men.	Women.	Total.	Male.	Female.	Total.	Instructors.	Elementary pupils.		Secondary students.		Total.	Men.	Women.	Elementary pupils.		Secondary students.	
										Male.	Female.	Male.	Female.				Male.	Female.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
New Jersey:																				
Camden.....	Young Men's Christian Association.	Frank E. Hyslop.....	10	0	10	90	0	90	3	0	0	0	28	0	7	0	43	0	20	0
Jersey City.....	Evening Technical and Industrial High School (public).	Frank E. Mathewson.....	18	4	22	485	106	591	1	0	0	0	64	3	17	4	0	0	485	106
Morristown.....	Morristown Automobile Engineering School.	James O'Gorman.....	8	0	8	110	15	125	8	0	75	5	35	10	8	0	75	5	35	10
Newark.....	New Jersey College Preparatory and Boston Technical School.	William J. Marshall, A. B.	3	1	4	32	8	40	2	1	18	4	22	3	1	1	9	3	7	4
Trenton.....	School of Industrial Arts.	Frank F. Frederick.....	22	5	27	477	217	694							22	5			477	217
New York:																				
Binghamton.....	Barlow School of Industrial Arts.*	V. S. Poessler.....	1	1	2	254	261	515							1	1			254	261
Brooklyn.....	Evening Technical and Trade School.	Henry T. Weed.....	38	8	46	461	252	713							38	8			461	252
Do.....	Industrial School Association, E. D.	Andrew D. Baird.....	0	10	10	186	160	346	0	10	186	160			0	4	50	80	1,252	613
Do.....	Pratt Institute.	Charles M. Pratt.....	109	80	189	1,999	1,538	3,537							109	80			1,999	1,538
Do.....	Young Women's Christian Association School.*	Mrs. C. U. Judson.....	0	25	25	0	1,450	1,450							0	25			1,450	1,450
College Point.....	Peppenhuisen Institute.	John G. Embree.....	7	4	11	163	109	272	2	0			46	13	5	4			117	96
Freeville.....	George Junior Republic (Hunt Memorial School).*	G. G. Andrews.....	7	6	13	103	56	159	2	3	52	16	20	1	7	6	15	19	16	20
New York.....	Barnard School of Household Arts.*	William L. Hazen.....	1	6	7	0	65	65	1	4	0	45	0	20	0	1	0	0	0	10
Do.....	Baron de Hirsch Trade School.	J. Ernest G. Yalden.....	17	0	17	408	0	408							17	0	408	0	0	0
Do.....	Cooper Union for the Advancement of Science and Art.	C. R. Richard.....	88	6	94	2,266	493	2,759							88	6			2,266	493
Do.....	Ethical Culture School.	Franklin C. Lewis.....	5	10	15	279	446	725	1	4			0	72	4	0	133	226	86	221
Do.....	General Society of Mechanics and Tradesmen of New York.	L. W. Harrington.....	22	0	22	324	0	324							32	0			324	0
Do.....	Harlem Y. W. C. A. School.*	Mrs. S. C. Martick.....	2	11	13	0	626	626	2	2			0	98	0	9			0	777
Do.....	Hebrew Technical Institute.	Edgar S. Barney, A. M.	16	1	17	347	0	347	5	1			291	0	11	0			347	0
Do.....	Hebrew Technical School for Girls.	Nathaniel Myers.....	2	24	26	0	570	570	0	12			0	570	2	12			0	267
Do.....	Hoe & Co. Apprentices School.	Fred B. Blackall.....	5	0	5	136	0	136	5	0			136	0	5	0			136	0

Do.....	Manhattan Trade School for Girls.....	Florence M. Marshall.....	0	43	43	0	550	550	0	18	0	270	0	18	0	280	0	270
Do.....	New York Evening School of Industrial Art (public).....	Edward C. Zabriskie.....	11	1	12	191	100	261				11	1			191	100	
Do.....	New York School of Applied Design for Women.....	Frank Tilford.....	5	11	16	0	676	676				5	11			0	676	
Do.....	New York School of Fine and Applied Art.....	Susan F. Bisell.....	11	20	31	150	527	677							6	12	100	
Do.....	New York Trade School.....	R. Fulton Cutting.....	28	0	28	526	0	526									526	
Do.....	St. George's Evening Trade School *.....	R. F. Van Oot.....	12	0	12	240	0	240							0	72	0	
Do.....	Massachusetts Evening Trade School for Men.....	W. Henry Knox.....	38	0	38	2,063	0	2,063	23	0	125	0	1,200	0	15	0	768	
Do.....	Technical School for Carriage Draftsmen and Mechanics.....	Andrew F. Johnson.....	1	0	1	65	0	65							1	0	65	
Do.....	Vocational School for Boys *.....	Charles J. Pickett, Ph. D. J. Irwin Chaffin.....	20	1	21	892	0	892	3	0	892	0			17	0	892	
Do.....	Webb's Academy and Home for Shipbuilders.....		4	0	4	48	0	48							4	0	48	
Do.....	Industrial School of Rochester.....	Mrs. John W. Oothout, L. L. D. Carleton B. Gibson.....	38	27	65	1,263	1,081	2,344	8	4	6	47	56		303	405	35	
Do.....	Rochester Shop and Vocational School.....	Alfred P. Fletcher.....	25	30	55	7,600	126	7,726	4	15	7,444	156	126	0	25	30,744	156	
Do.....	H. H. Franklin Mfg. Co. School *.....	J. O. Hoffman.....	2	0	2	30	0	30						2	0	30	0	
Do.....	Saunders Trade School.....	J. J. Eaton.....	10	4	14	128	86	214	3	1		128	86	7	3		128	
Do.....	Asheville Academy and Industrial Home *.....	Allice B. Dole.....	0	7	7	25	157	182	0	5	14	127	0	25	0	7	0	
Do.....	Brevard Institute *.....	Carl H. Trowbridge.....	8	8	16	75	133	208	5	3	21	26	54	107	5	6	21	
Do.....	Southern Industrial Institute *.....	J. A. Baldwin.....	6	7	13	92	57	149	6	7	52	30	27	1	1	30	19	
Do.....	Clinton Normal and Industrial School (negro).....	G. W. Herring.....	1	1	2	12	20	32	1	1		12	20	1	1		12	
Do.....	Edenton Normal and Industrial College (negro).....	W. E. Woodyard.....	1	4	5	40	78	118	0	3	33	67	7	11	1	3	33	
Do.....	Darland Institute *.....	Julia E. Phillips.....	1	7	8	80	100	180	0	3	50	70	30	30	1	3	50	
Do.....	Eastern North Carolina Industrial School Co. (negro) *.....	William Sutton.....	3	3	6	27	57	84	3	3		27	57	3	3		27	
Do.....	Industrial Union Institute.....	Rev. James M. Henderson.....	3	4	7	18	31	49	3	4	10	19	8	12	3	4	10	
Do.....	Valle Crucis Industrial School *.....	Mary E. Homer.....	0	9	9	26	78	104	0	6	26	78			0	3	0	
Do.....	Carolina Industrial School *.....	Samuel A. Ellet, D. D.....	1	5	6	69	57	126	1	5	66	55	3	2	1	5	12	
Do.....	State School of Forestry.....	Fred W. Smith.....	4	4	8	57	31	88	0	4		41	30	4	0		41	
Do.....	Cincinnati Continuation School (public).....	Randall J. Condon.....	3	0	3	260	0	260							3	0	150	
Do.....	Colored Industrial School of Cincinnati (negro).....	W. L. Hicks.....	4	4	8	75	37	112	1	2	30	20	2	3	4	4	73	
Do.....	Jeannette Garden and Trade School for Girls *.....	Elizabeth Gulkerman.....	0	24	24	0	156	156							0	24		
Do.....	Ohio Mechanics Institute.....	John L. Shearer, M. A.....	34	6	40	925	121	1,050	34	6		925	125	34	6		925	
Do.....	Cleveland Jewish Orphan Asylum *.....	S. Wolfenstein.....	6	10	16	278	224	500	4	6	186	141	49	32	4	6	95	
Do.....	Young Woman's Christian Association *.....	Jeanette Bullis.....	0	15	15	0	1,104	1,104	0	2	0	25			0	16	0	

* Statistics of 1912-13.

TABLE 18.—Manual and industrial training schools—Instructors and students, 1913-14—Continued.

Location.	Name of institution.	President, director, or principal.	Instructors.		Pupils.		Literary instruction.				Manual-arts instruction.									
			Men.	Women.	Total.	Male.	Female.	Total.	Instructors.		Elementary pupils.		Second-ary students.							
									Men.	Women.	Male.	Female.	Men.	Women.	Male.	Female.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Ohio—Continued.																				
Columbus.....	Columbus Trade School (public).....	J. H. Gill.....	8	1	9	84	0	84	3	0	0	0	84	0	8	1	0	0	84	0
Greenville.....	Wayne Technical Institute.....	John Beers.....	1	0	1	6	0	6	1	0	0	0	6	0	1	0	0	0	6	0
Wilmington.....	Andrews Institute for Girls.....	S. D. Shankland.....	1	11	12	0	142	142	1	3	0	51	0	72	0	11	0	51	0	91
Oklahoma.																				
Armore.....	St. Agnes Academy.....	Mother Mary.....	0	8	8	0	143	143	0	8	0	136	0	7	0	8	0	136	0	7
Pennsylvania.																				
Albion.....	Pennsylvania Railroad School for Apprentices.....	J. W. L. Hale.....	3	0	3	193	0	193							3	0			193	0
East Pittsburgh.....	Casino Technical Night School.....	C. R. Dooley.....	37	9	46	813	126	738							37	9	286	126	327	0
Freeland.....	Mining and Mechanical Institute *.....	W. R. Bray.....	2	0	2	0	200	200	8	0	0	160	0	0	2	0	12	0	40	0
Freemastad.....	C. M. Schwab Industrial School.....	John S. Bruce.....	4	4	8	425	425	850							4	4	300	300	125	125
Lancaster.....	Lawman Technical School.....	John J. Bowman.....	8	0	8	55	8	63							8	0	0	0	55	8
Do.....	Thaddeus Stevens Industrial School for Boys (State).....	William Melior.....	1	9	10	72	0	72	8	1	0	72	0	8	1	0	0	72	0	7
Mont Alto.....	Pennsylvania State Forest Academy.....	Edwin A. Ziegler.....	5	0	5	26	0	26	5	0	0	26	0	5	0	0	0	26	0	26
Philadelphia.....	Drexel Institute.....	Hollis Godfrey, Sc. D.....	34	30	64	1,733	1,040	2,773	11	5	0	1,733	1,040	2,773	23	25	0	0	1,733	1,040
Do.....	Franklin Institute School of Mechanical Arts.....	Wm. H. Thorne.....	11	0	11	305	1	306							11	0			305	1
Do.....	Girard College.....	Cheesman A. Herrick, L. J. D.....	22	34	56	1,520	0	1,520	17	35	1,176	0	344	0	17	1	450	0	344	0
Do.....	Pennsylvania Museum and School of Industrial Art.....	Leslie W. Miller.....	33	7	40	788	483	1,271							33	7			788	483
Do.....	Philadelphia College of Horology.....	F. W. Schuber.....	5	0	5	138	4	142							5	0			138	4
Do.....	Philadelphia School of Design for Women.....	Daniel Baugh.....	4	7	11	0	121	121							4	7	0	48	0	73
Do.....	Philadelphia Trades School.....	William C. Ash.....	10	0	10	405	0	405	12	0	59	0	346	0	16	0	59	0	346	0
Do.....	Wanamaker Institute of Industries.....	Samuel W. Fales.....	17	26	43	542	458	1,000	17	26	542	458		17	26	542	458			4
Do.....	Widener Memorial Industrial Training School for Crippled Children.....	Albert D. Ferguson.....	9	7	16	56	43	99	0	3	44	38		9	4	46	39	11		4

	7	14	239	0	239	0	7	.....	0	7	.....	239	0	.....	239	0
Williamson Free School of Mechanical Trades. Pennsylvania Soldiers' Orphans' Industrial School (State).	5	6	11	286	136	372	3	5	206	126	30	10	5	6	156	106
Rhode Island: Newport. Providence. South Carolina: Aiken.	3	4	7	642	599	1,241	.....	.....	.....	.....	.....	.....	3	4	551	555
Townsend Industrial School. Rhode Island School of Design.	42	13	55	839	225	1,064	4	0	.....	.....	85	37	41	8	114	91
Schofield Normal and Industrial Institute (negro).*	6	8	14	133	277	410	6	8	106	214	27	63	2	4	106	214
Mather Industrial School (negro). Voorhees Industrial School (negro). Denmark. Gaffney. Greenville. Greenwood.	10	12	12	5	84	89	0	9	3	70	2	14	0	12	3	70
Stirling Normal and Industrial Institute (negro).*	1	2	3	40	60	100	1	2	39	53	1	7	1	2	39	53
Brewer Normal and Industrial Institute (negro).	4	3	7	55	100	155	4	1	35	50	20	50	3	2	35	50
Mayesville Educational and Industrial Institute (negro). Textile Industrial Institute.	2	9	11	96	255	351	0	6	79	200	17	55	2	3	.....	.....
Spartanburg. South Dakota: Redfield. Tennessee: McMinnville.	4	8	12	154	306	460	4	8	29	66	18	43	4	8	87	143
College of Industrial Arts.* Keene Industrial Academy.	2	1	3	40	16	56	2	1	12	4	28	12	2	1	12	4
Plainview Academy.	6	4	10	56	45	101	5	2	6	8	39	48	3	2	6	6
Southern School of Photography.	2	2	4	43	24	67	.....	.....	.....	.....	.....	.....	2	2	.....	.....
Denton. Keene. Virginia: Cambris.	6	27	33	0	535	535	6	27	.....	.....	0	535	6	27	.....	.....
Franklin. Gretna. Ozama.	6	6	12	170	177	347	5	4	86	90	84	87	5	1	86	90
Port Conway. Richmond. Sutro. Wisconsin: Bellevue. Milwaukee.	6	7	13	112	159	271	6	4	75	98	37	61	4	4	37	53
Do. Do. Do. Do.	0	4	4	17	72	89	0	4	15	66	2	6	0	2	0	65
Do. Do. Do. Do.	2	2	4	26	48	74	2	2	16	25	10	23	2	2	16	25
Do. Do. Do. Do.	1	4	5	22	35	57	1	4	15	30	7	5	1	4	15	30
Do. Do. Do. Do.	0	2	2	8	8	14	0	2	3	4	3	4	0	2	3	4
Do. Do. Do. Do.	27	0	27	543	0	543	0	543	0	543	0	543	0	543	0	543
Do. Do. Do. Do.	4	3	7	31	36	67	3	2	5	5	26	31	1	2	5	5
Do. Do. Do. Do.	8	0	8	22	0	22	8	0	22	0	22	0	8	0	22	0
Do. Do. Do. Do.	10	0	10	523	0	523	10	0	523	0	523	0	10	0	523	0
Do. Do. Do. Do.	0	25	25	0	1,109	1,109	0	7	.....	.....	0	410	0	18	.....	.....
Do. Do. Do. Do.	12	0	12	325	0	325	.....	.....	.....	.....	.....	.....	12	0	.....	.....
Do. Do. Do. Do.	4	0	4	28	0	28	.....	.....	.....	.....	.....	.....	4	0	.....	.....
Do. Do. Do. Do.	0	7	7	54	0	54	.....	.....	.....	.....	.....	.....	0	7	.....	.....

* Statistics of 1912-13.

† Includes students above secondary grade.

‡ Includes secondary students.

TABLE 19.—Manual and industrial training schools—Property and expenditures, 1913-14.

Location.	Name of institution.	Volumes in library.	Value of buildings and grounds.	Scientific apparatus, furniture, machinery, etc.	Permanent endowment or productive funds.	Expended for salaries of teachers.	For buildings and lasting improvements.	For new tools and repairs.	For materials.	For incidentals.	Total expenditure.
1	2	3	4	5	6	7	8	9	10	11	12
Alabama:											
Benson.....	Kowalga Academic and Industrial Institute (negro).	1,025	\$20,319	\$4,182	\$12,430	\$3,292	\$90			\$1,573	\$4,955
Birmingham.....	St. Mark's Academic and Industrial School (negro).	425	40,000	4,000		2,163		\$816			2,979
Brewton.....	Downing Industrial School.....	700	37,907	4,749		5,371	183	277	\$310		6,111
Camp Hill.....	Southern Industrial Institute.*	7,520	60,300	5,000	1,410	5,400	50	50	1,400	150	2,250
Centerville.....	Centerville Industrial Institute (negro).	1,200	36,000	1,200		1,535	1,250	150	390	75	3,420
Greenville.....	Lyman Hamon High and Industrial Institute (negro).										
Mariners Ferry.....	Millers Ferry Normal and Industrial School (negro).	300	13,000	2,000							
Mobile.....	Ernest Academy (negro)*	800	50,000	8,000		760			75		835
Selma.....	Knott Academy (negro)	400	80,000	1,500	5,000	1,300	1,700		75	25	3,100
Talladega.....	Talladega College (negro)	15,000	291,691	875	185,637		500		230		2,546
Waucho.....	Mount Meigs Colored Institute.....	800	12,000	400		1,810					
Arkansas:											
Dermott.....	Southeastern Baptist Industrial Academy (negro).*	125	6,500	800		1,436	600	115	15	55	2,221
California:											
Oakland.....	Polytechnic College of Engineering.....	500	150,000	5,000							
San Francisco.....	Best's Art School.....	2,190				22,835	1,607	1,153	5,240	4,451	35,395
Do.....	California School of Mechanical Arts.....	1,350	141,929	31,500	1,239,500	12,792	7,794	2,659	2,478	2,945	28,638
Do.....	Cogswell Polytechnical College.....					15,000		2,000	1,000	5,500	23,500
Do.....	Heald's School of Mining and Engineering.										
Do.....	Lux School of Industrial Training.....	280	150,000	25,000	1,000,000	10,000	125,000	25,000	480	2,000	162,480
Do.....	Wilmerding School of Industrial Arts.....	538	115,000	19,000	400,000	20,340	3,000	600	2,000		25,940
Colorado:											
Denver.....	Denver School of Trades.....			7,069		5,499		765	500		6,764
Connecticut:											
Bridgeport.....	State Trade Education Shop.....	125		13,750		22,500		500	5,800	5,800	34,000
Hartford.....	Hillyer Institute.....	800	480,000	6,038	50,000	2,116		500	200	50	2,866
New Britain.....	State Trade Education Shops.*	100	50,000	25,000		19,962	5,032	1,200	4,802		30,990
New London.....	Manual Training Industrial School.....	99	75,000	31,000	119,000	14,280	15,000	5,000	1,800	300	36,380
Stamford.....	Yale & Towne Manufacturing Co. School.										

TABLE 19.—Manual and industrial training schools—Property and expenditures, 1913-14—Continued.

Location.	Name of institution.	Volumes in library.	Value of buildings and grounds.	Scientific apparatus, furniture, and machinery, etc.	Permanent endowment or productive funds.	Expenditures for salaries and teachers.	For buildings and lasting improvements.	For new tools and repairs.	For materials.	For inclinations.	Total expenditure.
1	2	3	4	5	6	7	8	9	10	11	12
Kansas:											
Kansas City (Quindaro).	Western University (negro)*.....	3,500	\$125,000	\$25,000	.....	\$36,462	\$6,000	\$2,000	\$1,000	\$500	\$45,962
Kentucky:											
Hinkman.....	W. C. T. U. Settlement School.....	3,500	50,000	1,000	\$40,000	2,500	.....	200	500	.....	3,200
Lincoln Ridge.....	Lincoln Institute of Kentucky (negro).....	3,500	185,310	71,338	250,408	1,784	.....	1,243	166	.....	3,193
Madisonville.....	Atkinson Literary and Industrial College (negro).....	2,000	20,000	.....	.....	1,800	500	.....	.....	2,200	4,500
Louisiana:											
Baldwin.....	Gilbert Academy and Industrial College (negro).....	2,000	75,000	2,000	50,000	4,000	500	100	100	300	5,000
La Fayette.....	Southwestern Louisiana Industrial Institute.*.....	2,000	100,000	10,000	.....	25,942	6,300	2,000	600	10,138	45,000
New Orleans.....	Isidore Newman Manual Training School.....	1,200	75,000	10,000	.....	5,309	500	300	2,000	1,000	9,100
Do.....	Peck School of Domestic Science and Art (negro).....	1,800	50,000	6,000	.....	2,940	.....	.....	.....	514	3,454
Ruston.....	Louisiana Industrial Institute.....	25,000	500,000	125,000	.....	.....	.....	.....	.....	.....	.....
Maine:											
Springvale.....	Nasson Institute.....	128	.....	.....	.....	3,750	.....	.....	.....	2,650	6,400
Maryland:											
Annapolis Junction.....	National Junior Republic.....	260	5,000	.....	.....	900	.....	100	.....	.....	1,000
Baltimore.....	Maryland Institute for the Promotion of Mechanic Arts.....	15,000	25,000	.....	.....	.....	.....	.....	.....	.....	.....
McDonough.....	McDonough School.....	900	550,000	50,000	1,538,000	11,450	40,000	5,000	1,000	300	57,750
Massachusetts:											
Beverly.....	Beverly Independent Industrial School*.....	500	.....	10,000	.....	5,480	550	550	4,550	1,550	12,680
Boston.....	Boston Y. W. C. A. School of Domestic Science.....	200	12,800	4,200	91,676	3,211	.....	142	566	650	4,569
Boston (Jamaica Plains).	Franklin Union.....	250	450,000	60,000	408,000	17,823	.....	734	2,268	18,030	38,585
Do.....	Hawley School of Engineering Corporation.....	.....	.....	10,000	.....	12,000	.....	300	500	2,200	15,000
Do.....	Habitat Industrial School*.....	300	.....	800	.....	2,776	.....	800	900	500	4,876
Do.....	Independent Evening Industrial School*.....	.....	.....	200	.....	.....	.....	.....	.....	.....	.....
Do.....	Industrial School for Boys*.....	.....	17,000	.....	.....	12,000	.....	4,000	4,000	.....	20,000
Do.....	Massachusetts Charitable Mechanic Association Trade School.....	75	.....	.....	10,000	3,600	.....	200	1,200	150	5,150

Do.....	New York School of Applied Design for Women.....	1,326	227,760	15,000	15,526	12,933	902				13,835
Do.....	New York School of Fine and Applied Art.....										
Do.....	New York Trade School.....	800	305,000	21,500	494,526	24,472	2,699	4,359	3,003	34,533	
Do.....	St. George's Evening Trade School *.....	200	35,000	2,000		3,000	250	1,000	200	4,700	
Do.....	Stuyvesant Evening Trade School for Men.....		1,200,000	200,000		26,063		1,600	20	27,771	
Do.....	Technical School for Carriage Draftsman and Mechanics.....			1,500		2,250		250		2,500	
Do.....	Vocational School for Boys *.....	265		41,965		34,317			6,295	40,612	
Do.....	Webb's Academy Home for Shipbuilders.....	200		2,500							
Rochester.....	Industrial School of Rochester.....	3,590	413,066	85,709	124,842	62,401	525	11,338	41,420	121,199	
Do.....	Mechanics Institute.....	200	90,000	3,000	54,100	54,100	700	15,249	849	90,868	
Do.....	Rochester Shop and Vocational School.....	2,000	5,000	15,000		3,200		3,200		3,200	
Syracuse.....	H. H. Franklin Mfg. Co. School *.....	135	117,855	70,511	350,000	31,396	220	2,961	149	34,726	
Yonkers.....	Saunders Trades School.....										
North Carolina:											
Asheville.....	Asheville Academy and Industrial Home.*.....	300	25,000	1,000		1,740	1,000	300	500	3,540	
Brevard.....	Brevard Institute*.....	1,100	40,000	2,000		1,400		25		1,425	
Charlotte.....	Southern Industrial Institute*.....	225	75,000	4,000		1,000		25		1,060	
Clinton.....	Clinton Normal and Industrial School (negro).....										
Edenton.....	Edenton Normal and Industrial College (negro).....	300	4,000			1,280	300	100	25	1,755	
Hot Springs.....	Dorland Institute*.....	1,000	57,000	6,600	5,000	4,500	2,000			6,500	
Newbern.....	Eastern North Carolina Industrial School Company (negro)*.....	25	1,000			180	600			780	
Southern Pines.....	Industrial Union Institute.....	2,000	17,750	2,850		2,100	1,000	200	25	3,625	
Valle Crucis.....	Valle Crucis Industrial School*.....	500	40,000			5,116	5,711	1,250	731	12,808	
Watha.....	Carolina Industrial School*.....		5,425	650		1,500		55	880	2,435	
North Dakota:											
Botineau.....	State School of Forestry.....	1,350	55,000	18,760		900		250	125	60	
Ohio:											
Cincinnati.....	Cincinnati Continuation School.....					4,200		200	100	4,500	
Do.....	Colored Industrial School of Cincinnati (negro).....		20,000	5,000	300,000						
Do.....	Jewish Kitchen, Garden, and Trade School for Girls*.....	400				1,836		100	100	2,236	
Do.....	Ohio Mechanics Institute.....	12,000	1,000,000	250,000	250,000						
Cleveland.....	Cleveland Jewish Orphan Asylum*.....	4,180	300,000	25,000	500,000	10,600	3,800	975	325	15,760	
Cleveland.....	Young Women's Christian Association*.....	70	6,000			12,308		188	2,096	16,861	
Columbus.....	Columbus Trade School.....	50		16,000		12,260		850	1,350	14,480	
Greenville.....	Wayne Technical Institute.....	500	6,000	500							
Willoughby.....	Andrews Institute for Girls.....	284	60,000	18,462	4,000,000	29,000		4,000	5,500	41,000	
Oklahoma:											
Ardmore.....	St. Agnes Academy.....	684					2,000	650		2,650	

* Included in column 11.

* Included in column 10.

* Statistics of 1912-13.

TABLE 19.—Manual and industrial training schools—Property and expenditures, 1913-14—Continued.

Location.	Name of institution.	Volumes in library.	Value of buildings and grounds.	Scientific apparatus, furniture, machinery, etc.	Permanent endowment or productive funds.	Expenditures for salaries of teachers.	For building and improvements.	For new tools and repairs.	For materials.	For incidentals.	Total expenditure.
1	2	3	4	5	6	7	8	9	10	11	12
Pennsylvania:											
Altoona.....	Pennsylvania Railroad School for Apprentices.		\$4,278	\$3,280							
East Pittsburgh.....	Casino Technical Night School.	30	12,000	12,000		\$11,028	\$800	\$3,256	\$300	\$100	\$15,483
Freeland.....	Mining and Mechanical Institute.*	500	25,000	1,500	\$80,000			100	25	10	1,035
Homestead.....	C. M. Schwab Industrial School.		75,000	30,000		5,000	500	500	300	300	6,600
Lancaster.....	Bowman Technical School.	300	22,000	3,000							
Do.....	Thaddeus Stevens Industrial School for Boys.	219	255,000	12,800							
Mont Alto.....	Pennsylvania State Forest Academy.	1,200	50,000	5,000							
Philadelphia.....	Drexel Institute.	40,000	904,600	425,502	2,000,000		14,000	2,500	11,000	11,000	38,500
Do.....	Franklin Institute School of Mechanic Arts.										
Do.....	Grand College.										
Do.....	Pennsylvania Museum and School of Industrial Art.	13,512	2,000,000	100,000	185,000	54,000		2,000	5,000	42,000	103,000
Do.....	Philadelphia College of Horology.	58	10,000	3,000		6,000	125	100	200	350	6,775
Do.....	Philadelphia School of Design for Women.	800	120,000	9,408	28,500	9,915		1,142		5,822	16,879
Do.....	Philadelphia Trades School.	800	133,300	12,500		22,727		(1)	(1)	3,072	25,799
Do.....	Wanamaker Institute of Industries.	106	25,000	5,000		10,000	500	1,500	(6)	75	12,075
Do.....	Widener Memorial Industrial Training School for Crippled Children.	1,000	3,000,000		4,000,000						
Williamson School.	Williamson Free School of Mechanical Trades.	4,000	600,000		2,000,000	16,055	22,000	4,175	8,234	84,464	134,928
Scotland.....	Pennsylvania Soldiers' Orphan's Industrial School.	600	120,000	30,000		9,600	10,000	1,000	3,000	1,000	24,600
Rhode Island:											
Newport.....	Townsend Industrial School.	100	50,000	13,000	30,000						
Providence.....	Rhode Island School of Design.	2,461	220,000		201,000	32,651	13,126	8,042			53,819
South Carolina:											
Aiken.....	Schofield Normal and Industrial Institute (negro).		75,000	500	50,000	3,500	500	100	600	100	4,800
Beaufort.....	Waller Industrial School (negro).	780	14,000	4,300		532	1,000			1,390	2,942
Denmark.....	Voorhees Industrial School (negro).	4,500	60	60		8,469	9,150	320		18,235	36,174
Gaithersburg.....	Cherokee Normal Industrial Institute.*	100	2,500	300		400	200	10			610
Greenville.....	Sterling Normal and Industrial Institute (negro).*	3,000	18,500	500		930	100	50	25	15	1,120

		200	30,000	2,000	9,000	600	14,900	25	50	675
Greenwood.....	Brewer Normal and Industrial Institute (negro).....	200	30,000	2,000	9,000	600	14,900	25	50	675
Mayesville.....	Mayesville Educational and Industrial Institute (negro).....	2,100	41,650	4,500	9,000	5,561	14,900	250	99	21,010
Spartanburg.....	Textile Industrial Institute.....	250	50,000	1,000						
South Dakota.....	Plainview Academy.....	710	42,886	8,871		1,100	200	216	1,450	2,966
Redfield.....						1,800		475	2,300	5,375
Tennessee.....	Southern School of Photography.....		10,000	2,000						
McMinnville.....										
Texas.....	College of Industrial Arts*.....	4,000	500,000	10,000						
Denton.....	Keene Industrial Academy.....	1,000	38,120							
Keene.....										
Virginia.....	Christiansburg Industrial Institute (negro).....	4,000	76,120	6,735	16,500	4,852	374	265	3,106	8,987
Cambridge.....										
Franklin.....	Franklin Normal and Industrial Institute.....	50	9,100	1,200						
Gretna.....	Pittsylvania Industrial Normal and Collegiate Institute (negro).....		5,500			1,084	375	48	60	2,987
Oreana.....	Rappahannock Industrial Academy (negro).....		10,000	1,000		844	1,048	100	150	3,654
Port Conway.....	Union Industrial Academy (negro).....	60	2,500	50						
Richmond.....	Virginia Mechanics Institute.....	4,000	44,873	13,445	2,928	5,471		852	906	13,448
Suffolk.....	Nansemond Collegiate Institute (negro).....		6,000							
Wisconsin.....										
Bethel.....	Pethel Industrial Academy.....	600	26,860							
Milwaukee.....	Industrial Chemical Institute of Milwaukee.....	1,150	30,000	15,000						
Do.....	Milwaukee School of Trades for Boys.....	260	185,000	60,000		30,184	60,623	6,178	7,191	106,780
Do.....	Milwaukee School of Trades for Girls.....	150	125,000	14,000		45,617	1,682	1,802	11,788	62,125
Do.....	School of Engineering of Milwaukee.....	250		16,499		13,408	5,987	1,064		23,527
Platteville.....	Wisconsin State Mining Trade School.....			10,000		1,500		500	100	2,100
Sparta.....	St. Mary's Institute.....	500	75,000							

* Statistics of 1912-13.

† Included in column 11.

‡ Included in column 9.

TABLE 20.—Industrial schools for Indian children—Instructors and students, 1915-14.

Location.	Name of institution.	President, director, or principal.	Instructors.			Pupils.			Literary instruction.						Manual-arts instruction.								
									Instructors.		Elementary pupils.		Second-ary students.		Instructors.		Elementary pupils.		Second-ary students.				
									Men.	Women.	Total.	Male.	Female.	Total.	Male.	Female.	Male.	Female.	Male.	Female.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Arizona:																							
Esclala.	Tucson Indian Training School.	James F. Record.	3	7	10	71	73	144	1	3	71	73			2	4	71	73					
Fort Defiance.	Navajo Indian School.	Peter Paquette.	0	5	5	172	120	292	0	5	172	120			0	5	172	120					
Kearns Canyon.	Mogul Indian Boarding School.	Leo Crane.	3	7	10	63	57	120	0	3	63	57			2	7	63	57					
Mohave City.	Fort Mohave Indian School.	A. F. Duclos.	5	4	9	103	93	196	2	2	103	93			5	4	103	93					
Phoenix.	Phoenix Indian School.	C. W. Goodman.	32	38	70	366	240	606	2	10	366	240			30	28	366	240					
St. Michaels.	St. Michaels Indian School.	Mother M. Layola.	2	10	12	79	65	144	0	4	79	65			2	10	69	51					
San Carlos.	San Carlos Day School.	A. L. Lawabe.	1	4	5	54	48	102	1	4	54	48			1	4	54	48					
Whitewater.	Fort Apache Indian School.	W. M. Peterson.	1	6	7	106	76	182	0	4	106	76			1	6	106	76					
Yuma.	Fort Yuma Indian School.	Lozon L. Odle.	5	5	10	76	73	149	1	2	73	60			5	5	76	73					
California:																							
Fort Bidwell.	Fort Bidwell Indian School.	W. A. Fuller.	4	5	9	59	30	89	0	2	59	30			4	3	40	25					
Greenville.	Greenville Indian School.	Chas. E. McChesney.	0	2	2	23	38	61	0	2	23	38			0	2	23	38					
Hoopa.	Hoopa Valley Indian School.	E. J. Holden.	2	3	5	70	75	145	1	2	70	75			1	1	30	35					
Riverside.	Indian Industrial Training School.	Frank M. Conser.	19	26	45	359	280	639	2	7	359	280			16	20	359	280					
Colorado:																							
Hesperus.	Fort Lewis School of Agriculture, Mechanical, and Household Arts.*	G. F. Snyder.	3	2	5	44	9	53	2	1			44	9	2	1			44	9			
Idaho:																							
Fort Hall.	Fort Hall Indian School.	Horton H. Miller.	8	3	11	77	71	148	0	3	77	74			8	0	77	74					
Kansas:																							
Lawrence.	Haskell Institute.	John R. Wise.	33	31	64	493	351	844	5	14	427	284	16	67	28	17	427	284	66				
Michigan:																							
Mount Pleasant.	Mount Pleasant Indian School.	Robert A. Cochran.	7	13	20	193	182	375	0	6	193	182			7	13	193	182					
Minnesota:																							
Pipestone.	Pipestone Indian Training School.	F. F. Mann.	13	12	25	112	92	204	5	4	112	92			8	8	112	92					
Redlake.	Red Lake Indian Agency Schools.	Walter F. Dickens.	2	5	7	127	109	236	2	5	91	84			2	5	127	109					
Tower.	Vermilion Lake School.	Otis O. Benson, M. D.	6	7	13	61	67	128	2	1	61	67			6	7	61	67					
White Earth.	White Earth Boarding School.	L. E. Baumgarten.	5	4	9	80	75	155	0	3	80	75			5	4	80	75					

TABLE 20.—*Industrial schools for Indian children—Instructors and students, 1913-14—Continued.*

Location.	Name of institution.	President, director, or principal.	Instructors.			Pupils.			Literary instruction.						Manual-arts instruction.					
			Men.	Women.	Total.	Male.	Female.	Total.	Instructors.		Elementary pupils.		Second-ary students.		Instructors.		Elementary pupils.		Second-ary students.	
									Men.	Women.	Male.	Female.	Men.	Women.	Male.	Female.	Men.	Women.	Male.	Female.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
South Dakota:																				
Flandreau.....	Indian Training School.....	Chas. F. Petree.....	10	13	23	189	160	349	1	8	174	154	9	6	10	5	137	102	9	6
Lower Brule.....	Lower Brule Industrial School *.....	Horace E. Morrow.....	2	6	8	51	37	88	1	2	51	37				1	4	51	37	
Mission.....	Rosebud Boarding School *.....	Emery A. Peffley.....	0	3	3	110	65	175	0	3	110	65				0	3	110	65	
Oahe.....	Oahe Industrial School *.....	Thomas L. Riggs, L.L.D.....	0	3	3	5	9	14	0	3	5	9				0	3	5	9	
Pierre.....	Indian Industrial School.....	C. J. Crandall.....	8	13	21	119	102	221	0	4	117	102				8	9	88	71	
Pine Ridge.....	Oglala Boarding School.....	Ralph H. Ross.....	11	13	24	120	116	236	1	3	120	116				10	10	120	116	
Rapid City.....	United States Indian School.....	Jesse F. House.....	2	5	7	170	127	297	1	4	170	129				2	1	170	129	
St. Francis.....	St. Francis Indian Mission School.....	L. F. Dugman, S. J.....	9	10	19	133	155	288	1	5	130	150	2	0		8	5	45	58	2
Springfield.....	Indian Training School.....	Mollie V. Gauthier.....	2	6	8	8	0	87	2	6	0	87				2	6	0	87	
Stephan.....	Immaculate Conception Indian School *.....	Rev. P. Boehm.....	4	8	12	21	35	56	1	2	21	35				2	6	21	35	
Utah:																				
Whiterocks.....	Utah Boarding School.....	B. A. Sanders.....	4	7	11	36	32	68	0	2	36	32				4	5	36	32	
Washington:																				
Fort Simcoe.....	Yakima Boarding School.....	Don M. Carr.....	6	10	16	65	75	140	2	3	65	75				4	7	63	54	
Tacoma.....	Cushman Trades School.....	Thos. B. Wilson.....	7	9	16	225	126	350	0	5	225	126				7	9	225	126	
Tulalip.....	Indian Training School.....	C. M. Buchanan.....	9	12	21	100	100	200	1	3	100	100				8	9	100	100	
Wisconsin:																				
Bayfield.....	St. Mary's Industrial School for Indian girls *.....	Sabinus Molitor, O.F.M.....	0	5	5	0	45	45	0	3	0	18	0	15	0	3	0	20	0	15
Hayward.....	Hayward Training School.....	Wm. A. Light.....	4	10	14	110	100	210	0	4	100	110				4	6	54	63	
Keshena.....	St. Joseph's Indian Industrial School.....	Simon Schwartz.....	3	5	8	100	100	200	0	5	100	100				3	5	100	100	
Lac du Flambeau.....	Indian Boarding School.....	L. W. White.....	4	8	12	30	25	55	0	2	30	25				4	6	30	25	
Onalaska.....	Onalaska Indian School.....	J. C. Hart.....	0	4	4	45	100	155	0	4	55	100				0	4	55	100	
Tomah.....	Indian Industrial School.....	L. M. Compton.....	5	7	12	106	117	223	0	4	106	117				5	3	32	42	
Wittenberg.....	Bethany Indian Mission School.....	Axel Jackson.....	2	2	4	25	25	50	1	2	25	25				1	2	25	25	
Wyoming:																				
Wind River.....	Shoshoni Reservation Boarding School *.....	C. E. Faris.....	8	8	16	90	85	175	1	3	90	85				6	6	56	52	

* Statistics of 1912-13.

TABLE 21.—*Industrial schools for Indian children—Property and expenditures, 1913-14.*

Location.	Name of institution.	Volumes in library.	Value of build- ings and grounds.	Scien- tific ap- paratus, or pro- furni- ture, ma- chinery, etc.	Perma- nent en- dowment, or pro- ductive funds.	Ex- pended for sal- aries of teachers.	For build- ings and last- ing im- prove- ments.	For new tools and re- pairs.	For ma- terials.	For incl- dentals.	Total expendi- ture.
1	2	3	4	5	6	7	8	9	10	11	12
Arizona:											
Escuela.	Tucson Indian Training School.	650	\$80,000	\$15,150		\$3,630	\$3,271	\$4,211	\$2,201	\$1,187	\$14,500
Fort Defiance.	Navajo Indian School.	161	105,610	4,000							
Keams Canyon.	Moqui Indian Boarding School.	282	70,025								
Mohave City.	Fort Mohave Indian School.					50,000	9,000	1,200	2,100	800	63,100
Phoenix.	Phoenix Indian School.	1,800	278,000								
St. Michaels.	St. Michaels Indian School.										
San Carlos.	San Carlos Day School.	80	1,650								
Whitewater.	Fort Apache Indian School.	200	40,000								
Yuma.	Fort Yuma Indian School.	300	50,000	500		15,000	2,000	1,000	500	1,000	19,500
California:											
Fort Bidwell.	Fort Bidwell Indian School.	285	89,455	8,000		6,600	3,000	1,500	7,000	2,900	21,000
Greenville.	Greenville Indian School.	810	40,000			1,750					1,750
Hoopa.	Hoopa Valley Indian School.	800				27,980	11,050	1,357	10,000		50,387
Riverside.	Indian Industrial Training School.	1,400	279,006	20,000							
Colorado:											
Hesperus.	Fort Lewis School of Agriculture, Mechanic, and Household Arts.*			6,000							
Idaho:											
Fort Hall.	Fort Hall Indian School.	315	15,000	200							
Kanساس:											
Lawrence.	Haskell Institute.	1,600	375,000	35,000		50,000	5,000	15,000	25,000	10,500	105,500
Michigan:											
Mount Pleasant.	Mount Pleasant Indian School.	644	178,662	12,150		12,340	15,000	100	100	50	27,590
Minnesota:											
Pipestone.	Pipestone Indian Training School.					16,070	6,700		23,105		45,875
Red Lake.	Red Lake Indian Agency Schools.	426	40,000	25,000		4,440					16,440
Tower.	Vermilion Lake School.	100	42,280	2,530		9,360	9,000				18,580
White Earth.	White Earth Boarding School.	200	88,297	6,850							
Montana:											
Poplar.	Poplar River Training School.	171	43,000	2,565		5,796	10,000	329			16,125
St. Peter.	Ursuline Convent of the Holy Family.										
Nebraska:											
Genoa.	Grant Institution.	883									
Santee.	Santee Normal Training School.*	2,000	50,000	4,000	\$500	5,080			100		5,180

* Statistics of 1912-13.

† Includes Cross Lake Indian School and St. Mary's Mission School.

* Included in column 11.

TABLE 21.—*Industrial schools for Indian children—Property and expenditures, 1913-14—Continued.*

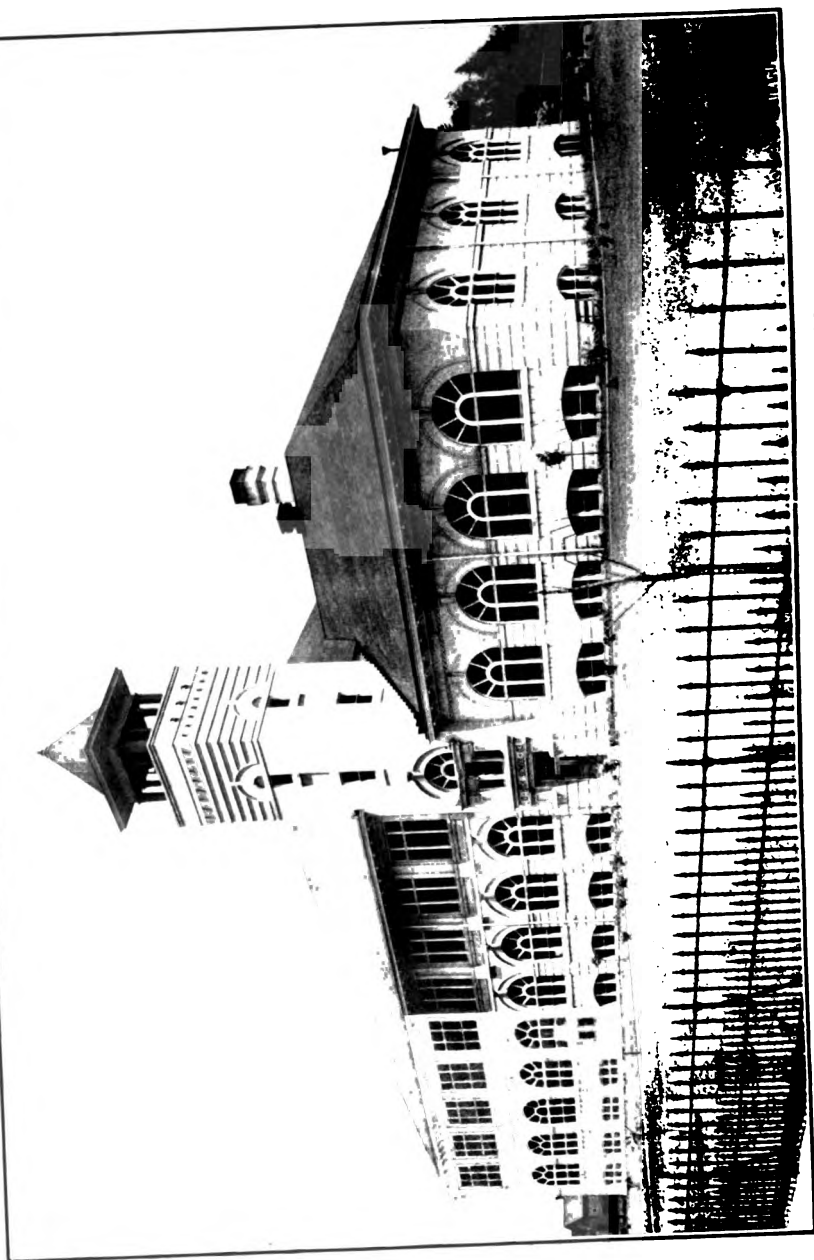
Location.	1	2	3	4	5	6	7	8	9	10	11	Total expenditure.
Nevada:												
Nixon.		Nevada Industrial School	200	75,000	200		1,550		300	150		2,000
Stewart.		Carson Indian School.										
New Mexico:												
Albuquerque.		Indian Training School.	1,200	205,705	13,700		24,000	20,000	5,000		39,000	85,000
Blackrock.		Zuni Indian School.	238	61,039	5,400		1,860	2,100				3,960
Duce.		Jicarilla Apache Indian School.	127									
Farmington.		Mary A. Tripp Memorial School.		16,000								
Rehoboth.		Rehoboth Mission Boarding School.	200	5,000			1,100	1,200	400			2,700
Santa Fe.		United States Indian Industrial School.	1,000	138,000	5,000		26,000	24,000	500	5,000		55,500
Shiprock.		San Juan Boarding School.	2,064	143,843								
Tonatchi.		Indian Boarding School.	134	50,000	2,000							
New York:												
Hogansburg.		Indian Girls Industrial School.										
Itoukus.		Thomas Indian School.	600	196,423	3,945							
North Carolina:												
Charlotte.		Cherokee Indian School.	300	100,000	20,000		14,000	6,000	3,000	4,000	9,000	36,000
Pembroke.		Indian Normal School.	250	5,000	20							
North Dakota:												
Bismarck.		Bismarck Indian School.	200	100,000	6,500							
Ellis.		Proving Boarding School.		25,000			29,000	6,000	1,200	10,000	3,000	49,200
Fort Totten.		Fort Totten Indian School.		75,900	15,000		3,620	1,000	600	1,000	400	6,620
Washington.		Indian Training School.	150	126,000	3,000							
Oklahoma:												
Andarko.		Riverside Indian Boarding School.	250	80,000	3,000							
Chillico.		United States Indian School.	1,800	594,375	1,000		11,140		500	1,000		12,640
Oklahoma:												
Colony.		Seger Indian Schools.	200	50,000								
Hammon.		Red Moon School.		50,000			2,870	650	175	200	600	4,495
Hartshorne.		Jones Male Academy.	150	15,000	2,000		6,945	1,200	500	800	200	9,645
Hugo.		Old Good Land Indian Industrial School.		20,835	500							
Lawton.		Fort Sill Boarding School.	120	335,000	7,000							
Pawhuska.		St. Louis Boarding School for Osage Indian Girls.										
Pawnee.		Pawnee Indian Training School.	250	30,000								
Shawnee.		Indian Training School.	500	25,000	600		1,800		2,000	500		4,300
Whiteagle.		Ponca Indian Training School.	285	25,000	5,000		4,740					4,740
Wyandotte.		Seneca Boarding School.	500	100,000	100		5,400	5,000	3,000	2,000	4,000	22,400

		1,877	181,832	13,198	15,040	18,000	(1)	(1)	(1)	
Oregon:	Salem Indian Training School.....	1,877	181,832	13,198	15,040	18,000	(1)	100	75	(1)
Chenewa.....	Klamath Training School.....	146	80,000	10,000	2,160	1,800				
Pennsylvania:	United States Indian School.....	3,600	568,908		50,000	30,000	(1)			80,000
Carlisle.....	Indian Training School.....	540	250,000		15,450	16,000	250	500		250
South Dakota:	Lower Brule Industrial School *	130								
Landreau.....	Rosebud Boarding School *	500	1,000	250	800					
Mesa Brule.....	Oakley Industrial School.....	3,165	109,800	10,000	14,970	15,000	10,000	8,000		25
Mission.....	Indian Industrial School.....	600	150,000	20,000	20,580	4,000	1,000			9,030
Pine Ridge.....	Ugahla Boarding School.....	3,165	150,000	20,000	20,580	4,000	1,000			27,920
Rapid City.....	United States Indian School.....	789	255,020	80,462						
Saint Francis.....	St. Francis Indian Mission School.....	20	25,000	500						
Springfield.....	Indian Training School.....	260	30,000		2,400	1,850				5,132
Stephan.....	Immaculate Conception Indian School *	210	20,000	1,400						
Utah:	Ulinah Boarding School.....	138	57,500	6,000	11,630	1,500	1,500	500		
Whiterocks.....	Yakima Boarding School.....	871	200,000	20,000	11,520	1,500	1,500	10,500		
Washington:	Cushman Trades School.....	300	150,000	50,000	16,000	17,000				
Fort Simcoe.....	Indian Training School.....									
Tecoma.....	St. Mary's Industrial School for Indian Girls *									
Tulalip.....	Hayward Training School.....	87	90,000	8,000	5,360	18,000	350	350		
Wisconsin:	St. Joseph's Indian Industrial School.....	300	35,000	5,000	2,000	2,000	1,000	2,000		
Bayfield.....	Indian Boarding School.....	120	100,000	50,000	12,000	1,500	2,000	1,000		
Keshena.....	Oneida Indian School.....	121	65,000							
Lac du Flambeau.....	Indian Industrial School.....	200	100,000	3,000	5,440	6,000	500	100		25
Onida.....	Bethany Indian Mission School.....		1,500	1,000	2,260	300	100	50		100
Tomah.....										
Wittenberg.....										
Wyoming:	Shoshone Reservation Boarding School *	100	126,000	18,000	13,000	4,000	1,000	16,000		1,000
Wind River.....										

* Included in column 8.

* Statistics of 1912-13.

O



CENTRAL HIGH SCHOOL (CONSOLIDATED) AT GRAND RAPIDS.

Eighth-year graduates from all the 60 outlying schools of district No. 1, Itasca County, who desire further education are either conveyed to the school free of charge or their living expenses are paid by the district while they are in school attendance.

UNITED STATES BUREAU OF EDUCATION

BULLETIN 1915, NO. 20 WHOLE NUMBER 647

THE RURAL SCHOOL SYSTEM OF MINNESOTA

A STUDY IN SCHOOL EFFICIENCY

By H. W. FOGHT

SPECIALIST IN RURAL SCHOOL PRACTICE
BUREAU OF EDUCATION



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CONTENTS.

	Page.
Letter of transmittal.....	5
Preface.....	6
I. General outline.....	7
Introductory statement.....	7
A liberal system of school maintenance.....	7
State aid to public schools.....	8
The greatest weakness in the system.....	9
A variety of units of school organization.....	9
Associated schools, or schools of the trading center.....	10
Rapid progress in school consolidation.....	11
Growing interest in a larger unit of organization.....	11
Minnesota successful in fitting the rural schools to the needs of the open country.....	12
II. Work of the large undivided school districts.....	12
How the large districts are organized.....	12
A businesslike administration.....	13
How the system works in practice.....	14
The story of school district No. 1, Itasca County, an illustration to the point.....	15
Some interesting phases of school work in district No. 2, Itasca County.....	18
III. Associated schools, or schools of the trading center.....	20
A successful compromise in school centralization.....	20
The Putnam Act and school association.....	20
General advantages of school association.....	21
A concrete illustration.....	22
Chatfield associated schools.....	25
IV. Consolidation and genuine community schools.....	28
The public beginning to realize wastefulness under the old system....	28
Minnesota consolidated schools becoming effective community centers.....	29
Consolidation easily attained because of liberal laws.....	29
State aid the great spur.....	30
Degree of success in consolidation dependent on proper safeguarding ..	30
Progress in consolidation both rapid and substantial.....	32
V. Industrial education and rural-school progress.....	33
The industrial subjects and new school interest.....	33
Satisfactory progress in industrial education under the Putnam and Benson-Lee Acts.....	34
Statutory requirements for industrial aid.....	34
State high-school board charged with maintaining regulations for industrial aid.....	35
Comments on the industrial subjects.....	35
Short courses for the whole community.....	40

	Page.
VI. Teacher training for the rural schools.....	43
Schools where this training is offered.....	43
Special training courses in high schools.....	43
Weakness of the training departments as now organized.....	44
Some of the requirements under the Minnesota law.....	44
Practical side of the training.....	45

APPENDIX.

Rules and regulations of the Minnesota State Department of Education.....	47
Regulations of the State high-school board.....	49
Typical short courses.....	51
Plans of the State supervisor of teacher training in high schools.....	54

ILLUSTRATIONS.

PLATE 1. Central high school (consolidated) at Grand Rapids.....	Frontispiece.
2. A. Type of small one-teacher school in the new clearings; B. Consolidated school, Deer River District, No. 2, Itasca County.....	16
3. A. School farm in connection with the Deer River consolidated school; B. Workshop in a good consolidated school in northern Minnesota.....	16
4. A. Model one-teacher school in district No. 2, Itasca County; B. A portable schoolhouse in a new logging camp of Itasca County.....	16
5. A. Two-room rural school in the Itasca County clearings; B. Spring Valley associated schools.....	16
6. A. Spring Valley associated schools; B. Thrashing on a farm on the Spring Valley associated school.....	24
7. A. Central building of the Chatfield associated schools; B. Chatfield cooperative laundry.....	24
8. A. Chatfield associated schools; B. Sauk Center farm.....	32
9. A. Studying stock; B. Testing eggs for fertility.....	40
10. Manual training class in Le Sueur High School.....	40
FIGURE 1. Map of Itasca County, Minn.....	15
2. Map showing Chatfield, Minn., associate schools.....	25
3. State map of consolidated schools.....	31
4. Extension work in Minnesota.....	38

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, D. C., October 24, 1914.

SIR: Through what seems to be a very wise adaptation of methods of support and administration to schools of different kinds and to schools working under varying conditions in different parts of the State, but still preserving a high degree of correlation and unity of purpose, and by a commendable degree of liberality in expenditures for education, the State of Minnesota has made remarkable progress in improving the efficiency of its rural schools. Believing that an account of this improvement, and of the methods and means by which it has been wrought, would be helpful to those working for the improvement of rural schools in other States, I detailed Harold W. Foght, one of the bureau's specialists in rural education, to go to Minnesota and study its rural schools and prepare such an account for publication. The accompanying manuscript embodies the results of his studies. I recommend that it be published as a bulletin of the Bureau of Education for distribution among those who are directly interested in the improvement of rural schools in the United States.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

PREFACE.

The following brief study is the result of several weeks' first-hand observations of the rural schools of Minnesota.

This State at an early date committed itself to certain educational policies that have made possible the establishment of its present comprehensive system of rural and village schools. Perhaps no other State has been quite as successful as Minnesota in establishing a system of schools intended to meet the demands of modern rural life, and it is for this reason that the study was made.

The purpose has been to emphasize only those phases of the rural school system that have a definite relation to the successful operation of the schools. These are, in brief (1) school maintenance, especially with general and special State aid; (2) units of school organization, falling under the heads of small districts, large undivided districts, and unorganized territory; (3) kinds of school organization, comprising consolidated and associated schools; (4) agriculture and other industrial subjects in all the schools; and (5) rural teacher training in high schools.

Acknowledgment is due the Minnesota State Department of Education for assistance freely given; especially to State Supt. C. G. Schulz, who has read these pages through and offered valuable suggestions; to Mr. E. M. Phillips, ex-State rural school commissioner, and Mr. George B. Aiton, ex-State high-school inspector, both of whom took great pains in planning the trips of investigation. Similar acknowledgment is due Supts. E. A. Freeman, of Grand Rapids; George E. Keenan, of Deer River; F. E. Maxon, of Spring Valley; E. B. Forney, of Chatfield; Miss Annie E. Shelland, county superintendent of Kochiching County; and many others for photographs, printed materials, and other valuable helps and information.

H. W. F.

September 15, 1914.

THE RURAL SCHOOL SYSTEM OF MINNESOTA.

I. GENERAL OUTLINE.

Introductory statement.—Minnesota is making rapid progress in organizing its rural schools to meet the needs of present-day agricultural life. Its schoolmen and legislators recognize that preparation for life in rural communities can be given in schools specially organized to meet rural needs. The one-teacher schools of the State are, on the average, as efficient as those in other States; but they have proved unable to meet the needs of modern farming in preparing the children for practical and contented lives on the soil. Consequently, Minnesota has adopted a policy of discouraging all further decentralization of school effort by seeking to save its school districts from further subdivision into smaller units, and of encouraging centralization of schools, either through association or consolidation wherever practicable. Some excellent legislation has made the reorganization reasonably easy of attainment. Then, too, liberal State aid has provided the spur to hasten the work of change. Most important of all, the men who are responsible for the reorganization have kept well in mind that the new schools must be rooted firmly to the soil.

Some States have made the great mistake of consolidating their schools in urban places, retaining in them courses of study poorly adapted to the needs of country children. This may be a gain to the town, but it means loss to rural districts. Other States have carried courses planned for city conditions to consolidated schools set in the open country. Such a practice is a serious obstacle to the speedy organization of our national agricultural life. Minnesota has many consolidated and central schools in associated systems that are located in large and small villages; but where this is the case the courses of study, equipment, experimental plats, and all other things offered the country children invariably point the way back to the soil and are sufficient to train them for contented agricultural life. The Minnesota practice is to consolidate the schools in the open country or on the edge of the rural-minded villages, where the workers can be convenient to the soil.

A liberal system of school maintenance.—The rural schools of the State draw their support from the following sources: (1) Apportionment per pupil, derived from the interest on the permanent school

fund and a State tax of 1 mill on all taxable property; (2) a local tax of 1 mill on all assessed property within the school district; (3) special aid voted by the State legislature; (4) proceeds from fines, etc.; and (5) local taxes voted at the annual school meetings. Local taxes comprise about 59.9 per cent of the entire income, State taxes 14.7 per cent, and the permanent State fund and "other sources" 25.4 per cent.

The productive permanent State fund is approximately \$25,000,000, and this amount is being increased at the rate of about \$1,000,000 annually from the sale of land and timber and royalty from iron ore mined on the school lands, of which there still remain some 800,000 acres. The income of this fund, together with the State mill tax, amounted for the past year to \$5.60 per pupil throughout the State.

The following table shows the rapid growth of the permanent State fund:

TABLE 1.—*Permanent school fund—Growth by decades.*

1870.....	\$2, 426, 240
1880.....	4, 449, 725
1890.....	9, 241, 119
1900.....	12, 546, 529
1910.....	21, 002, 571
1914.....	24, 401, 847

State aid to public schools.—Liberal aid is extended, through direct legislative appropriation, to stimulate educational progress. The amount of such aid depends in every instance on the character and amount of educational work accomplished, the preparation of the teachers employed, and the kind of school equipment.

For the ensuing year every State high school will be entitled to \$2,200 of such aid, and every graded school will get \$750. In Minnesota a State high school is any school that offers four years of high-school work and employs at least eight regular teachers. A graded school is defined as one that offers all the work covered by the first eight years in the public-school system and employs at least four teachers. In case a graded school offers at least two years of high-school work and employs two additional teachers, it is entitled to an added \$500 in State aid.

In addition, special aid is offered for industrial work, for teacher training, as inducement for consolidation or association, and also to the semigraded and ungraded rural schools. The term "industrial work" is used to include agriculture, manual training, and home economics. Schools that offer all of these subjects are entitled to annual aid in the sum of \$2,500, besides the regular aid mentioned above. Those that offer agriculture and either one of the other subjects receive an aid of \$1,800.

Schools that are consolidated under the Holmberg Act may receive aid ranging from \$750 to \$1,500 annually, according to the size of the area embraced in the district. Village and town schools that associate with themselves a certain number of outlying rural districts for the purpose of taking advantage of agricultural and other industrial instruction may, in addition to the above, receive \$150 for each rural school so associated, and besides this an additional \$50 may be voted to every such rural school. More than a quarter of a million dollars will be expended for the associated schools during the current year.

Table 2 gives the special State aid available to public schools since 1900:

TABLE 2.—*Special State aid to public schools.*

Years.	State high schools.	Graded schools.	Semi-graded schools.	Ungraded rural schools.	Normal training.	Consolidation and association.	Industrial work.
1900.....	\$85,000	\$26,000	\$11,000	\$40,000	\$10,000	.....	.....
1905.....	287,000	79,000	72,000	120,000	10,000	.....	.....
1910.....	377,700	116,400	101,994	240,460	21,000	.....	.....
1911.....	377,700	137,300	150,968	645,617	42,000	.....	.....
1912.....	381,500	154,300	144,000	465,000	60,750	\$78,250	\$120,000
1913.....	378,000	159,700	121,770	565,449	60,000	119,301	133,646
1914.....	474,151	205,550	132,240	645,017	103,842	167,388	270,640

The greatest weakness in the system.—The Minnesota system of State aid, unfortunately, makes no provision for aiding the poorer districts. At this point it fails to equalize educational advantages.

About \$775,000 is distributed annually among the semigraded and ungraded rural schools of the State. Certain requirements are made in regard to school equipment, length of school year, and teacher preparation, before such direct aid—which ranges from \$75 to \$150 per year—can be granted. Under the present law, whatever funds may be needed by the school district above what will accrue from the first four sources of taxation mentioned above, must be provided by a local tax not to exceed 15 mills on the dollar. Here is the real difficulty. Many of the sparsely settled districts in the northern woods, with their comparatively low valuation, are unable to meet the State requirements for aid, even though they vote the limit of 15 mills. On the other hand, the older wealthy districts in the southern part of the State may obtain the highest State aid by voting a very small additional tax—perhaps a mill or two—on their very high valuation. This condition of inequality is regretted by Minnesota schoolmen, and will, no doubt, soon be remedied.

A variety of units of school organization.—Minnesota presents an interesting study in school organization. Throughout the central and southern parts of the State the small districts with their one

and two teacher schools prevail. These can not, under the law, embrace less than 4 square miles of land, and few of them exceed 9 square miles. Some of the small schools are well built and well taught, but many are inefficient, and can do little or nothing toward improving modern agricultural life. They are the least satisfactory schools in the entire system.

Several northern counties contain very large school districts that have been able to resist the temptation to subdivide into many smaller units. Some of the districts are surprisingly large. One in Itasca County, for example, embraces 62 townships or 2,232 square miles, an area larger than Delaware and twice the size of Rhode Island. The district has 60 outlying schools, besides schools in several villages and good-sized towns. The whole district is so thoroughly organized and school advantages are so uniformly administered that this form of school organization has proved vastly superior, in most ways, to the small one-school unit. One school board of three men, together with a professional superintendent and his assistants, supervises all education within the district.

Certain portions of north Minnesota, notably St. Louis County, still contain some so-called "unorganized territory." All such territory is, by law, vested in a county board of education for educational purposes, and the county superintendent is clerk and executive of this board. This means that schools are established wherever needed and of the kind needed, by the county board and county superintendent, with funds voted from the county at large. Where the superintendent is a man of good executive ability and force of character this system, too, proves very satisfactory. It tends to give the poor, remote communities as satisfactory educational advantages as others.

Associated schools, or schools of the trading center.—As suggested by its name, this form of organization contemplates bringing about an intimate relation between a centrally located village or town school and all the small rural schools within the radius of its trading community. Under this organization the outlying districts retain their local organization and the control over the home school. At the same time a new board—the associated board—representing all the outlying schools and the central school, is organized to look after the common interests of the association of schools. This system provides adequate supervision for all the rural schools, as the superintendent of the central school is held responsible for the work done in the associated schools. The services of the industrial teachers of the central school are also extended to the rural schools, so that the latter, in a manner, become parts of one complete system, all centered in the village school. School association is often the first

step in the direction of consolidation with the central school. The system of trading-center schools has proved generally satisfactory.

Rapid progress in school consolidation.—Prior to 1911 only nine consolidated districts had been organized in the State. In the spring of that year the Holmberg Act, which provides a new and more liberal law for the consolidation of schools, went into effect. Under it 107 additional communities have effected consolidation. The progress of the movement to reorganize the schools is especially strong in the northern part of the State, where the small districts have never had a very strong hold upon the people. The schools are centered usually either in the open country or in rural-minded villages. Of such schools receiving aid, for the year 1911–12, under the Holmberg Act, 13 were in the open country and 17 in villages. In any case no school can secure State aid for industrial purposes that does not own or have a long-time lease on at least 5 acres of land for experimental purposes. No consolidated school comprising an area of less than 12 square miles can draw State aid under the above-mentioned act.

Growing interest in a larger unit of organization.—Minnesota is no exception to the large number of States in the Middle West that are beginning to seek ways and means to attain a more satisfactory unit of school organization than the prevailing small district. Such small territories, it is readily understood, can not maintain strong farm schools, but the plea for local democracy and home rule has usually been sufficient to block the plans for progress in consolidation. On the other hand, Minnesota has the significant example of what has been done for consolidation and centralization in the large undivided districts and unorganized territory in the northern part of the State. The larger the unit, apparently, the easier it is to consolidate the schools.

Experience in Minnesota seems to point to the county as the natural unit of school organization wherever it is the unit for civic administration. The Minnesota advocates of this system would elect a nonpartisan board of education of, for example, three members, from over the county at large, or by election districts—three or more in the county, according to the size of the board. This board should then choose a professional superintendent for a term of years, who might be held responsible for the selection of competent teachers and for the general management of the schools. Under such a system the old district lines would drop away and educational advantages be equalized over the county. Schools would be elected wherever needed and abandoned where no longer required. Some small schools would probably continue to persist, although the tendency would be toward consolidation into strong, efficient systems.

Minnesota successful in fitting the rural schools to the needs of the open country.—It is of little avail to consolidate or associate the schools for country people if merely gathering children together is the end of the reform.¹

Minnesota is an agricultural State and appreciates the value of a system of schools organized to prepare scientific agriculturists and men and women of right vision to take their places in community affairs. The laws providing for consolidation and association and for the several kinds of State aid all aim at fostering real rural schools. The consolidated schools extend their educational opportunities to young and old alike. They have, first, the regular courses for the boys and girls of school age. They also make it possible for young people who for good reason can not attend school regularly to take valuable short courses, or even, in some instances, evening and correspondence courses. Some of the schools have short courses for the parents. Of greatest importance are the socializing activities resulting from these consolidated schools. Mr. E. M. Phillips, formerly rural school commissioner for the State, says:

Already the principals in the various schools are arranging for boys' and girls' clubs, farmers' clubs, women's clubs, lecture courses, debates, exhibits, contests, agricultural institutes, social gatherings, potato and corn growers' and stock breeders' associations, cooperative marketing, and numerous other activities suggested by local conditions. The possibilities in this direction seem unlimited. Experience indicates that with direction and encouragement upon the principal's part, the school easily becomes the community center for all desirable cooperative activity. The larger interests, the wider scope and possibilities revealed in dealing intimately with more people engaged in a common cause, the exchange of social courtesies, all tend to broaden the outlook of patrons as well as children. Neighborhood differences, including petty quarrels and feuds, are lost sight of in the thought, and living is rounded out with contentment and a new hope. This is not visionary. Thus early in the movement the tendency to improve conditions for life in the country is asserting itself in consolidated school communities.

II. WORK OF THE LARGE UNDIVIDED SCHOOL DISTRICTS.

How the large districts are organized.—The large northern counties of Minnesota have for the most part only recently emerged from the great forest. Some sections are yet in the hands of the lumberjacks, although large areas are already leaving the "cut-over-land" stage and are developing into excellent grain and dairy farms. While a county remains unorganized educationally the entire area of the

¹Some time ago the writer visited a fine, well-built consolidated school in a certain State of the Middle West. The school was reared in the midst of an ideal environment of field and forest, and yet the course of study did not permit one to believe that it was intended for rural folk needing to be set in harmony with their own daily environment. Full courses in Latin and German prevailed, with optional courses in French; no attention whatever was paid to nature and the soil.

territory is administered by a county board of education, of which the county superintendent is clerk and has the practical management of school affairs. As soon as this board of education may deem advisable—a matter dependent upon growth in population, increase in wealth, etc.—it may by due process of law set off separate common-school districts from the unorganized area. The State law encourages the organization of such territory into large units by granting to districts embracing 10 or more townships all the powers of independent school districts. Occasionally these large units become subdivided into several smaller districts; but, on the whole, the administration provided by law is so satisfactory that many large districts have continued intact for years, until at the present time it is quite common to find within them several good-sized villages and scores of outlying schools administered by one educational board of three members.

A businesslike administration.—The success of these large and often topographically unwieldy districts lies in the businesslike way with which their affairs are managed. In the first place they have a central board of education, comprising three members, elected from at large over the district at the regular November elections for three years each. These men are expected to devote much time to school affairs, for which they receive good compensation. The compensation depends on the size of the districts, ranging from \$200 a year where the districts contain 30 schools to \$800 a year where there are 91 schools or more. In addition to their salaries, the members of the board are "paid their actual and necessary traveling expenses incurred and paid by them in the conduct of their official duties, including their visitation of schools."

The executive powers of the board are vested in a professional school superintendent appointed by the board for a term of years. Some of the strongest school men in the State hold these responsible positions—and responsible they truly are, for the superintendents are charged with the enforcement of the school policy for the entire area, both as to main purpose and smallest detail. From the central school where his offices are—usually in the largest village in the district—he and the board plan for the schools. From this point the superintendent supervises as many of the schools as he can. What he is unable to do in person for lack of time is done by his assistants, particularly the teachers of agriculture, manual training, home economics, and music, who make the rounds of the rural schools, and who often in their turn have further assistants. This plan works for close, intelligent, and helpful supervision.

Because it might be difficult at all times for the central board to know the educational needs of each part of the district, the law pro-

vides that in districts containing 20 or more townships the annual school meeting shall elect a local township superintendent for each congressional township, who receives a reasonable compensation for his work. The duties of the local superintendent are many and varied. The statutes contain the following:

The town superintendent shall advise the school board in regard to the location, erection, and repair of school buildings, the improvement of school sites, the employment of teachers, the furnishing of school supplies, and all other matters relating to the schools in the town. He shall look after truants, visit the schools, attend meetings of school officers called by the county superintendent, report from time to time to the school board the condition of schools in his town, with such suggestions in regard to their improvement as he may deem proper, and, when authorized by the school board, make contracts for fuel and other necessary supplies for the schools in his town, and for ordinary repairs for the schoolhouses.

How the system works in practice.—The large districts are marked by a varied community life. The same district may have sections rich in iron ore and prosperous agricultural areas, while its borders may be marked by almost unbroken forests or new clearings and scattered cabins. This would mean every degree of prosperity and poverty. To equalize matters so as to give the most recent "squatter" all the educational advantages of the established lumber king is the working problem of the central board of education.

It will be recalled that this board is not hampered by local district lines or well-established community democracy. The board has complete freedom to build from new beginnings. The members study, first of all, the financial needs of the district for the ensuing year; then make up their budget and vote the necessary tax, which is levied on the total assessable property of the district. Since the district has all the powers and duties of an independent district, the rate of taxation is not as limited as with the ordinary common-school district. If a logging camp needs a temporary school, a portable schoolhouse is erected and a well-trained teacher placed in charge. If a given school has dwindled in size, the school is abandoned and the children are transported at public expense to the nearest school. Wherever or whenever it is deemed expedient, consolidated schools are organized and industrial courses added. A State high school is usually established in the largest town, and such pupils as live at a distance of not more than 5 miles from the school are conveyed daily to and from the school. Whenever the pupils live too far from the central school to take advantage of the transportation wagons for high-school purpose, the school board must provide their guardians with a sum of money sufficient for boarding and lodging the children while they are in high-school residence.

The small rural schools are provided with uniformly well-trained teachers, with adequate and uniform equipment of apparatus and

books; and, usually, they have suitable terms of school—longer, as a rule, than in the smaller districts found elsewhere. In this way the children who live far from town and older settlements are not neglected, but are given every opportunity to take their place with the best-educated citizens of the State.

The story of school district No. 1, Itasca County, an illustration to the point.—This unusually large district contains 62 congressional townships, or 2,232 square miles. It has a total length, north and south, of 60 miles, and is 63 miles in breadth at its widest point of measure. The land is of glacial formation, and is cut by hundreds of large and small lakes. Much of it is still in the original pine and hardwood forest. The southern third is making great headway in clearing up the “cut-over lands” and is rapidly becoming a prosperous agricultural region. Roads are being cut at considerable expense

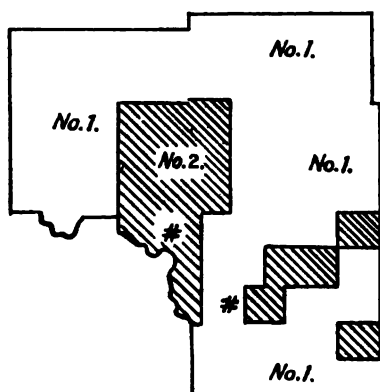


FIG. 1.—Map of Itasca County, Minn.

through the forests in every direction. Four railway lines penetrate sections of the district, along which the large town of Grand Rapids and the smaller villages of Cohasset, Blackberry, Verna, Warba, Swan River, and Wawina have grown up. The schools of all these places, and threescore others in the open country, are being managed most successfully by one board of education, comprising three men and one expert superintendent, who has the assistance of a corps of professional helpers.

(a) *Remarkable cohesion of parts.*—One would naturally expect that the towns and the open country might try to pull apart and establish districts independent of one another, or, at least, that each town or village would insist on its own independent organization. Thus, for example, Grand Rapids, with a population of 2,500 people, has the central high school of the district, while Cohasset, with a population of 800, has only a graded school. The latter town seems to have no desire to establish a district of its own, however, since its

interests are the interests of the entire district, and the town really has all that it can wish in educational facilities. The district has erected here a \$40,000 building for the eight grades, including an excellent equipment for domestic science and manual training. All the children of high-school grade are conveyed daily in comfortable wagons to the high school at Grand Rapids. The latter affords far better facilities than Cohasset would be able to offer, were it to operate its own high school. What is true of Cohasset is true of the other railroad towns in the district. Educational advantages are so equably distributed that any local jealousies or differences that may at times have arisen have never shown sufficient strength to bring about the disruption of a highly satisfactory system.

(b) *The Central High School at Grand Rapids.*—Grand Rapids has the central high school of the district and also two good graded schools. The former is a State high school of the first class and is housed in a well-equipped building set in ample grounds. The school offers exceptional work in agriculture, domestic science, and manual training, and has a training course for rural teachers. The graduates from the teachers' course are in great demand for the outlying schools of the district. Indeed, it becomes possible for the superintendent, under whose eye they are prepared, to place all the graduates where they will best fit local conditions and accomplish the most good.

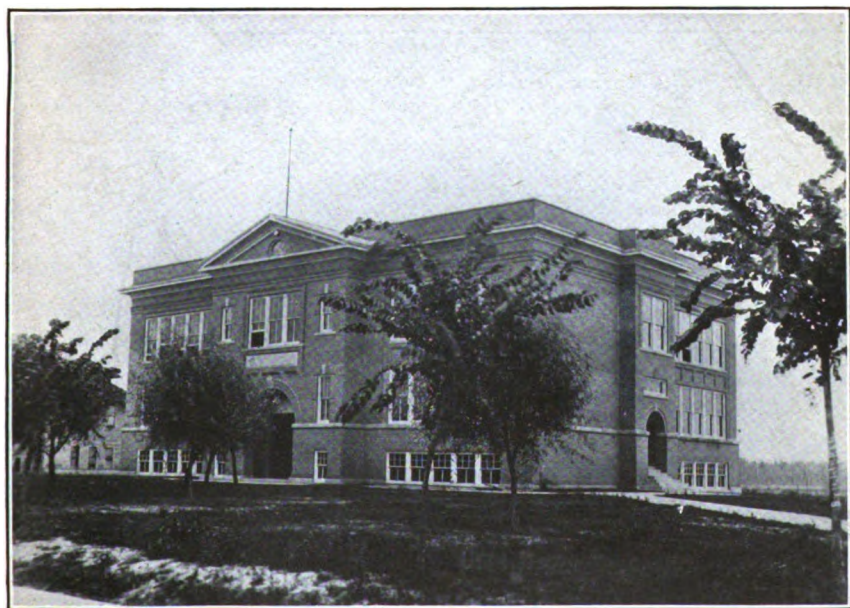
Every child of school age in the district who has completed the work of the eighth grade is entitled to all the advantages offered by the central high school. All children living within a reasonable distance of the school are conveyed thither at public expense. Nor are the children who live at a greater distance from Grand Rapids neglected. The school district pays \$7.50 a month toward defraying the living expenses of every such pupil while in school residence.

The central high school offers most thorough industrial courses, and, in addition, an interesting short course of 10 weeks during the winter months for young men and women who can not regularly attend during the school year.

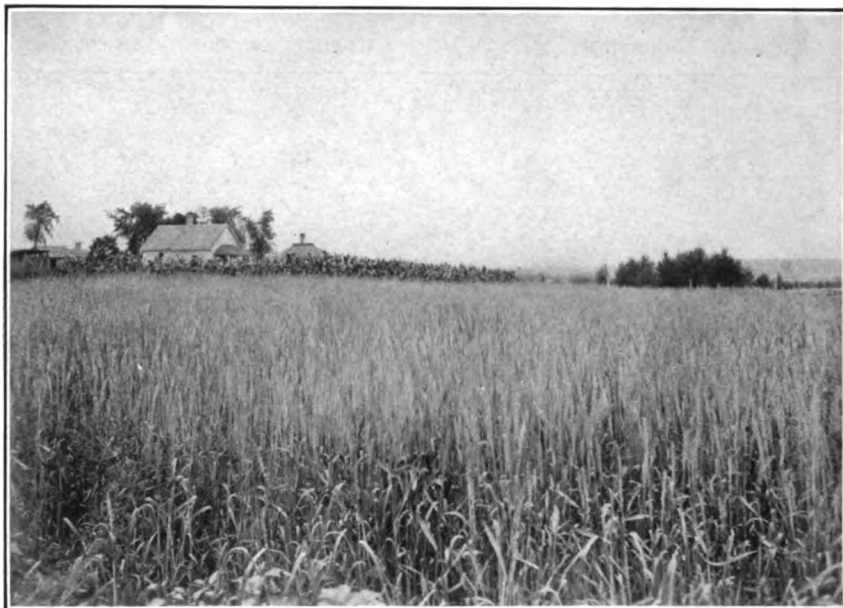
(c) *Teachers, length of school year, salaries.*—There is no better way, perhaps, to convey to the reader the main facts of teacher preparation, length of school term, school enrollment, and salary, in district No. 1, than to reproduce here in detail a table containing all these facts for every one of its 60 rural schools. It will be seen that no teacher has less than a second-grade county certificate, which demands as a prerequisite five months' successful experience as a teacher. Every school in the district, without exception, has a nine months' term—a remarkable condition for a new and only partly developed country. The school enrollment in some of the schools is very



A. TYPE OF SMALL ONE-TEACHER SCHOOL IN THE NEW CLEARINGS.

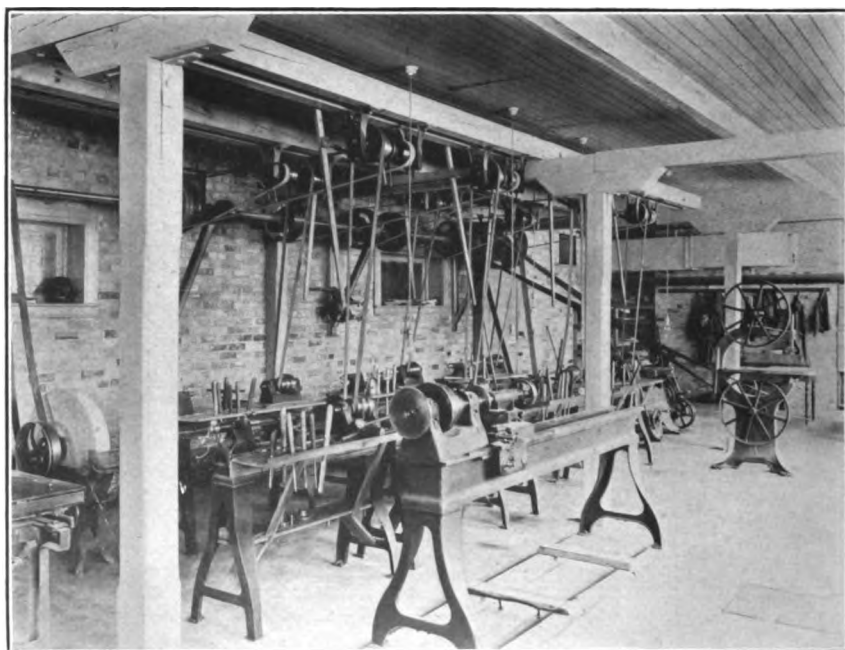


B. CONSOLIDATED SCHOOL, DEER RIVER, DISTRICT NO. 2, ITASCA COUNTY.



A. SCHOOL FARM IN CONNECTION WITH THE DEER RIVER CONSOLIDATED SCHOOL.

The school wheat field is shown in the foreground.



B. WORKSHOP IN A GOOD CONSOLIDATED SCHOOL IN NORTHERN MINNESOTA.



A. MODEL ONE-TEACHER SCHOOL IN DISTRICT NO. 2, ITASCA COUNTY.

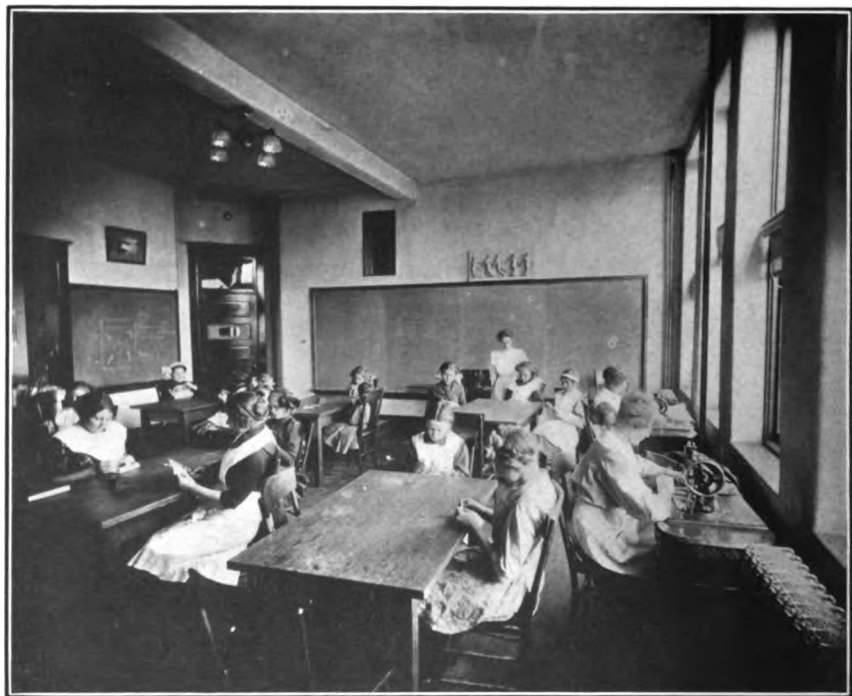
This is modern in every respect and is well equipped to do industrial work.



B. A PORTABLE SCHOOLHOUSE IN A NEW LOGGING CAMP OF ITASCA COUNTY.



A. TWO-ROOM RURAL SCHOOL IN THE ITASCA COUNTY CLEARINGS.



B. SPRING VALLEY ASSOCIATED SCHOOLS.

Girls from the outlying districts assembled at central school for their Friday afternoon sewing lesson.

small. This is accounted for by the sparsity of population in the newer clearings. No teacher receives less than \$47.50 per month. On the whole, the showing is very satisfactory.

School district No. 1, Itasca County.

Schools.	Grade of certificate.	Probable enrollment.	Teacher's salary.	Schools.	Grade of certificate.	Probable enrollment.	Teacher's salary.
Allwood.....	First.....	9	\$52.50	Max.....	First.....	28	\$50.00
Arbo.....	First.....	17	55.00	Nelson.....	Second.....	7	47.50
Balsam Lake.....	First.....	19	52.50	Ottum.....	First.....	9	52.50
Bearville.....	First.....	20	52.50	Orth.....	First.....	6	52.50
Bear River.....	First.....	25	47.50	Pine Top.....	First.....	6	52.50
Bargyville.....	First.....	25	52.50	Rahler.....	First.....	20	47.50
Big Fork.....	First.....	40	67.50	Reed Lake.....	Second.....	12	55.00
Do.....	Second.....	28	53.00	Round Lake.....	Second.....	20	47.50
Blackberry.....	Second.....	30	75.00	Shallow Pond.....	Second.....	8	52.50
Do.....	Professional.....	25	50.00	Sand Lake.....	First.....	6	47.50
Busticoggin.....	First.....	19	52.50	Shoal Lake.....	First.....	9	52.50
Cowhorn.....	Second.....	8	47.50	Spthand.....	First.....	7	52.50
Carpenter.....	Second.....	30	52.50	Spruce Park.....	First.....	8	52.50
Carlson.....	Second.....	10	47.50	Squaw Lake.....	Second.....	30	52.50
Cunningham.....	First.....	22	52.50	Swan River.....	Second.....	10	50.00
Delap.....	Second.....	16	47.50	Sizer.....	First.....	12	52.50
Dunbar Lake.....	Second.....	14	50.00	Sturgeon Lake.....	First.....	8	52.50
Dora Lake.....	First.....	10	55.00	Smith.....	Second.....	7	47.50
Freestone.....	First.....	8	52.50	Togo.....	Second.....	18	47.50
Erwin.....	First.....	12	52.50	Tichnor.....	Second.....	15	47.50
Greenfield.....	First.....	12	52.50	Thorofare.....	Second.....	8	47.50
Hayden.....	Second.....	5	47.50	Wawina.....	First.....	18	55.00
Harrington.....	First.....	24	52.50	Warbe.....	First.....	25	70.50
Hanson.....	Second.....	8	47.50	Do.....	First.....	30	55.50
Haupt.....	First.....	28	52.50	West Fork.....	First.....	28	52.50
Horton.....	Second.....	18	47.50	Weltle.....	Second.....	6	47.50
Moose Park.....	Second.....	7	50.00	Wirt.....	Second.....	6	50.00
McCormick.....	First.....	4	52.50	Deer Lake.....	First.....	8	52.50
McKinley.....	First.....	16	55.00	Trout Lake.....	First.....	20	61.00
McIntire.....	First.....	20	52.50	Do.....	First.....	28	52.50

The teachers of the village graded schools and the central high school have, most of them, professional or special certificates. The length of school term in these schools ranges from 9 to 9½ months. The salaries paid are also high. The industrial teachers, on whom falls a part of the responsibility of supervising the work of the rural schools, receive from \$1,000 to \$1,500 each.

(d) *System of school equipment.*—The great advantages of a strong central system can be seen in the manner of equipping the 60 rural schools of the district for their work. Each schoolhouse has a standard equipment of adjustable single seats, modern bookcases, drinking fountains or earthen jars and individual cups, clocks, charts, maps, etc., and a well-chosen library. Besides this, all manner of working material, as raffia, rattan, materials for weaving mats, woolen yarn, and plasticine, as well as all textbooks, paper, ink, and pencils are furnished the pupils free of charge.

• The district purchases all its supplies, which are kept in storerooms at the central school until requisitioned by the teachers of the several

schools. Everything is purchased by an experienced educator, who buys nothing but the best. He and his assistants choose and send out the libraries to the rural schools, which is a guarantee that they will contain good wholesome reading.

(e) *How the schools are linked together.*—The work of the outlying schools is largely outlined and directed from the central school. This is especially true of work that deals with exceptional phases of community education, as patriotism, home sanitation, local recreation, etc., and it is encouraging to know that the schools find time for this kind of local leadership. Other work under the direction of the teachers from the central school is, of course, agriculture, manual training, and home economics. Teachers from the central school spend much of their time in the rural schools, or they have perambulating assistants who are charged with these duties. Typewritten lessons in industrial subjects are sent out to the schools from time to time or it may be "Some experiments with plants and soils" or similar themes. Later come "follow-up" sheets asking the teachers pertinent questions, which tend to keep them on the alert and interested. Of other lessons sent out the following are suggestive titles: "Itasca County geography outline," "The teacher's duty to stimulate patriotism," "School lunches as subject for thought," "Outline of sewing for rural schools," and "Teachers and their instructions in regard to local poverty and disease."

Some interesting phases of school work in district No. 2, Itasca County.—Itasca County, with its area of 3,000 square miles, contains only five school districts. Of these, two comprise exactly one township each, and another nearly three townships. The Grand Rapids District, with its 62 townships, is the largest of all. District No. 2—otherwise known as the Deer River District—has an area of 470 square miles.

In organization and purpose these five districts are very similar. It is therefore unnecessary to go into details of the work done in all of them. A few things of special interest from a study of the Deer River District will suffice.

(a) *Spirit of enterprise.*—The investigator invariably gets the feeling upon coming in contact with the school boards and superintendents in these large districts that here is an organization for school purposes which utilizes all the business enterprise and aggressiveness that mark other large American commercial and industrial enterprises. These school boards receive a remuneration for their labors sufficient to make them look upon their school duties as a part of the day's work, rather than as something incidental and belonging to odd moments. At any rate, a marked spirit of aggressiveness and liberality is found

in all these large districts, yet this system of organization is more economical than the other, because it is more thoroughly organized.¹

(b) *A complete school equipment.*—The outlying schools of the Deer River District are well planned. Apparent exceptions to this statement are found in a few places where portable houses have been erected to answer the temporary needs of some new logging community or settlement. The schoolhouses are well built. They are invariably correctly lighted. Each of them is equipped with a modern heating and ventilating system, with bubbling fountain, two good manual-training benches and tools, and some with oil stoves, ovens, and all necessary cooking utensils. All books and working materials are furnished free of charge.

(c) *Supervision and extension work.*—The superintendent and his assistants hold frequent community rallies at the schoolhouses, where local problems are discussed. Once a year the farmers and their wives are invited to attend a two-day short course at the Central High School at Deer River, when dinners are served free by the domestic science department of the school.

The instructor in agriculture spends a large part of his time in visiting rural schools, outlining the work in agriculture, and in advising with the farmers of the district. In a similar way the manual-training instructor makes the round of the rural schools, spending a half day at a time giving instruction in handwork.

(d) *The central high school.*—This school is located at Deer River, a village of 1,500 people. It is a thoroughly equipped school, having a modern central building and a separate building for manual training and forge work. A large school farm adds materially to the physical equipment. The school is consolidated under the Holmberg Act, and conveys children to school from over an area of a five-mile radius. It further receives aid as a State high school and for maintaining industrial work in agriculture, domestic science, and manual training. Children of high-school preparation, living beyond the transportation limits, receive \$2 per week to apply on their living expenses.

(e) *Night short courses.*—The central school offers a series of practical night courses 1 night weekly for 10 weeks. This is in addition to the regular industrial work, and is intended particularly for the grown people in or near Deer River.

¹ The following is an illustration in point: When the writer and a half dozen associates were studying Deer River District as guests of the community, meetings were arranged and school board members and other educators from adjacent districts were invited to be present. These meetings were for school business and not for entertainment, however. The domestic science department of the central school was given an opportunity to show that the pupils knew how to cook, by preparing dinner for a party of 20 people. A special train was chartered by the school board over the Minneapolis & Rainy River Railroad, which penetrates the district from north to south, in order that the guests might reach the largest number of rural schools in the short time at their disposal. This train stopped at the logging sidings whenever handy to some rural school and finally pulled up near a logging camp where a hearty dinner was waiting.

III. ASSOCIATED SCHOOLS, OR SCHOOLS OF THE TRADING CENTER.

A successful compromise in school centralization.—In many communities the common practice of consolidating small, ineffective rural schools into strong central plants is objected to as doing violence to time-honored ideals and traditions. Because of this feeling the weak, one-teacher schools have, in many places, continued to persist in the face of repeated efforts at consolidation. The proposed remedy has seemed too radical and has been voted down.

Minnesota has at this point worked out a compromise that has proved satisfactory to all concerned. This is the so-called associated schools, or schools of the trading center.

A rural trading center, speaking generally, embraces the central village, with its various emporiums of trade and exchange, and all the surrounding country that can conveniently use the village as a clearing house for its agricultural products and as a social recreation center. The schools of such an area, including the central village school and some or all of the outlying rural schools, may by law associate themselves for mutual educational purposes. The striking feature of this system is, as already indicated elsewhere, that all the districts that enter into the association retain their independent organization for local purposes, including the general control of the home school. At the same time they become merged into one large district—the associated district—for all matters of common educational interest. The school officers of all the associated districts, three members from each, form a board with authority to levy a special tax for associated purposes. In addition to this there is formed an associated board comprising the six members of the village board and one member each from the associated districts. The duty of this board is to manage the affairs of common interest, such as disbursing the funds voted by the larger board and employing the special instructors in industrial subjects provided by law.

The Putnam Act and school association.—The Minnesota form of school association was made possible by the provisions of the Putnam Act, which has revolutionized school work in the public schools of the State. This law provides, primarily, liberal aid for instruction in agriculture, manual training, and household economics in certain high schools and graded schools. But, secondly, it makes provision whereby rural schools may become associated with an adjoining high school or graded school in order that the rural schools may receive the benefits of these industrial subjects on equal terms with the village schools.

A few of the more important sections of the Putnam Act read as follows:

SEC. 6. For the purpose of extending the teaching of agriculture, home economics, and manual training to pupils in rural schools, and for the purpose of extending the influence and supervision of State high or graded schools over rural schools, one or more rural schools may become associated with any State high or graded school maintaining a department of agriculture, whether or not such high or graded school has been designated by the State high-school board to receive aid under the provisions of this act. Any such State high or graded school shall for the purposes of this act be known as a central school.

SEC. 7. To effect this, proceedings shall be had by petition and election on the part of the rural school or schools as now provided by law for the consolidation of school districts, and ballots to vote upon this question shall read:

To associate with Dist. No. — for the teaching of agriculture and manual training—
Yes— No—. The district or districts casting a majority vote upon the approval of such association by a majority of the school board of the central school become so associated, and the rural school or schools, together with the central school, shall thereafter be known as the associated schools of ——— for the teaching of agriculture and manual training.

SEC. 9. The school board of each rural school district associated with a central school under the provisions of this act shall designate one of its members by vote to act with the school board of the central school in carrying out the provisions of this act as to the teaching of agriculture, domestic economy, and manual training in such schools, and in all matters pertaining to such instruction, both in the central school and in the associated rural schools, such member shall have equal power with the member of the school board of the central school.

SEC. 10. The principal or superintendent of the central school shall have and exercise the same authority and supervision over the rural schools as over the central school. He shall prepare for the associated rural schools a suitable course of study embodying training and instruction in agriculture and such subjects as are related to farm life and can be successfully taught in rural schools.

SEC. 11. The relationship and obligations between the associated rural school or schools and the central school may be terminated at any annual school meeting by a majority vote of the associated districts, but not until the central school has had at least one year's notice of the intention to vote on the question.

General advantages of school association.—The system established by the Putnam Act provides adequate supervision for all the rural schools, since the superintendent is charged with responsibility for all the work done in the associated schools. The industrial teachers are employed by the associated board for all the schools, and while their work centers in the village high or graded school they must direct the industrial subjects in all the schools.

Such a system when fully developed embraces many activities, all directed from the central school. It may include: (1) The central school, having the usual eight grades and a four-year high school; (2) as many locally independent schools as there are districts in the association; (3) well-organized industrial courses, including a variety of short courses; (4) an experimental plat or farm of five or more

acres; (5) agricultural extension work, usually in conjunction with the State College of Agriculture extension division; and a local training school for rural teachers.

This kind of organization makes possible a real community school. It goes far beyond ordinary schoolroom practices and utilizes all the great out-of-doors. It combines the resources of town and country to the end of harmonizing townfolk and country folk, enabling them to realize that they are members of one common body who must work together in harmony to mutual ends.

Ex-State High-School Inspector George B. Aiton, who has himself taken a large part in school association, has this to say about the advantages of the Minnesota plan, as exemplified by the Cokato Association, which is known as one of the most satisfactory in the State:

1. The problem of rural schools is solved, at least for this community. Teachers, texts, courses of study, and methods of instruction are brought under expert supervision.

2. A supply of rural teachers is established. These teachers, who have been trained in the central school, go back and forth familiarly and are in as close touch with the superintendent as are the grade teachers of the village.

3. Agricultural instruction is brought to the farmer's door. The organization of from one to half a dozen such schools in each county—no distant daydream—is far ahead of a sparse system of schools, such as one for each congressional district.

4. The plan is economical. Present buildings are utilized and the ordinary high-school teachers are able to do the academic part of the work.

5. By combining the resources of town, county, and State and by avoiding duplication, competent instructors may be employed.

6. Class education—and this is no trifling matter—is avoided.

7. The town school is improved by the attendance of country students, and country students are improved by mingling with town students.

8. A long step has been taken to solve the problems of rural life. The influence of a cooperative school will be exerted, not only in favor of greater productivity and of cooperation in marketing, but in favor of improved roads, speedy transportation, reasonable hours of work, and increased pay. The upshot of it all can not fail to be more homes of thrift and contentment.¹

A concrete illustration.—Spring Valley is a village of 2,000 people, situated in a rich farming community in the southeastern part of the State. The people are noted for thrift and conservatism. In spite of the latter the past four years have seen marked changes in the system, especially so since the adoption of the policy of association, which, according to Supt. F. E. Maxon, who was instrumental in organizing the system, has wrought great things both for the town and near-by country.

(a) *Central school and farm.*—A modern high-school building was erected three years ago and equipped for industrial work—agriculture, manual training, and household economics. This enabled the school

¹ Pamphlet reprinted from *The School Review*, Vol. XX, No. 2, February, 1912.

to draw annual State aid of \$2,500 under the Putnam Act. At the present time three large rooms are used exclusively for agriculture work, two large rooms contain the manual training and forge work, and two are equipped for domestic science. It is interesting to note that of the 200 students of high-school grade pursuing the industrial subjects more than 50 per cent are from the associated rural districts. This speaks volumes for the influence of the system in keeping the rural children in the small schools and "pointing" them for the central school.

The school maintains a farm of 16 acres in a high state of cultivation. The produce from this farm has, year by year, sold for more than enough to pay all running expenses. All agriculture students are expected to learn the practical phases of the subject, doing work on the farm.

(b) *Beginnings of association.*—In 1911, 20 rural districts were invited to associate with the central district for industrial purposes under the Putnam Act. Fourteen districts voted for association, seven by unanimous vote. No district has ever expressed a desire to withdraw from the association, and others which at first refused to enter have made request for admission.

(c) *Work of supervision and cooperation.*—The superintendent makes an effort to reach each school at work and consult the teacher about the general school work. Regular reports are expected from all rural teachers, and from time to time they are called to the central school to consult with the industrial teachers. The latter also make regular rounds of the outlying schools and send each teacher type-written lesson-guides for the daily industrial work.

Each district is provided with uniform textbooks and school equipment at cost. This means uniformity and great saving. So well has the plan worked that nonassociated districts are seeking to get their books and equipment through the office of the association. In all schools where there are two or more boys over 10 years of age a double bench and sets of tools are placed—providing the district agrees to pay for the lumber used. The benches and tools remain the property of the association and can be transferred from one school to another according to the need. Likewise, where there are two or more girls old enough, and the board agrees to furnish the supplies, a two-burner kerosene stove, oven, and complete cooking outfit are placed in each rural school making the formal request.

(d) *Rural pupils at the central school.*—During three months in the fall and two in the spring, pupils 10 years of age and over spend Friday afternoon of each week at the central school, engaged in industrial study. The agriculture teacher meets all the pupils for 40 minutes in agriculture work; after this the boys spend a second hour in the manual training shop under the direction of the manual train-

ing instructor, while the girls are at work in the domestic science rooms. The work begun on Friday afternoon at the central school is expected to be continued throughout the week in the home school, and to be ready for report at the next Friday meeting.

(e) *The short courses.*—The first of these is a three months' course, open to young men and women above 15 years of age. During the past year 33 students took advantage of the course, almost all of them coming from the open country. Instruction is given in English, farm arithmetic and accounts, civil government and farm sanitation, agriculture, cooking, sewing, carpentry, forge work, spelling, and penmanship.

A junior short course and contest is also an annual feature. At this, liberal prizes are awarded for various exhibits, among which the corn exhibits usually take first place. Special prizes are also offered for the best displays from the rural schools. The local commercial club holds a well-patronized market day while the junior short course is in session.

(f) *The agricultural instructor the local farm adviser.*—The instructor who has charge of agriculture and the school farm acts as adviser to the entire farming community. He holds himself in readiness to plan farm buildings and silos, and often drives long distances into the country to instruct in types of dairy and beef cattle, hogs and sheep, and in a thousand and one ways assists in bettering agricultural conditions.

Occasional night meetings are also held at the outlying school-houses, where farm-life topics of all kinds are discussed.

(g) *The cost of association.*—It is of interest to know what the system costs the rural schools over and above the regular maintenance of the local schools. Last year the Spring Valley associated school board paid out the following amounts:

Salaries—5 teachers (2 for 4 months only).....	\$4, 140
Agriculture.....	955
Home economics.....	414
Manual training.....	1, 014
Not classified.....	803
Total.....	7, 326

The above statement includes the purchase of considerable equipment for the industrial departments, but does not include the school farm, which was self-sustaining.

The State paid the associated school board the following amounts:

State aid for the three industrial subjects.....	\$2, 500
State bonus (\$150) for each of 14 districts associated.....	2, 100
Total.....	4, 600



A. SPRING VALLEY ASSOCIATED SCHOOLS.

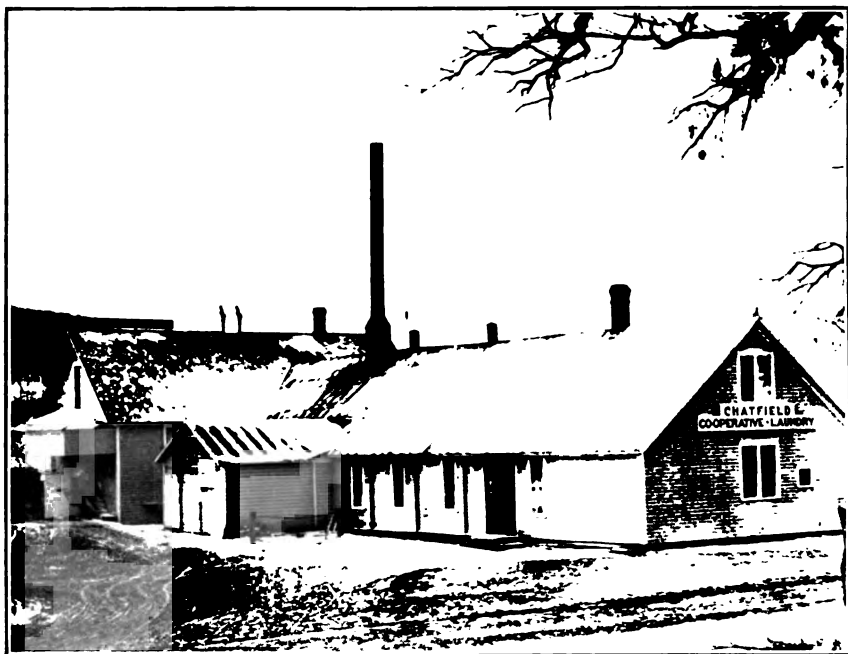
Boys from the outlying districts assembled at the central school for their Friday afternoon manual training lesson.



B. THRESHING ON THE FARM OF THE SPRING VALLEY ASSOCIATED SCHOOL.



A. CENTRAL BUILDING OF THE CHATFIELD ASSOCIATED SCHOOLS.



B. CHATFIELD COOPERATIVE LAUNDRY.

Established for the farm folk largely through the efforts of the associated school.

The one stipulation for State aid is that the associated schools must raise one dollar for each two dollars of State aid. In this case, the sum of \$2,300 would have to be levied on the entire associated district. Two mills on the dollar would be more than enough for this purpose. On this basis what would the average outlying district pay for its share? The assessed valuation of the 14 districts varies from \$32,000 to \$100,000, with an average of \$50,000. This amount at two mills would make \$100—the average cost to each district. Of this amount \$50 is refunded by the State, which, it will be recalled, pays annually \$50 to each rural school associated. Indeed, at Spring Valley several schools paid only about \$10 each, while one or two paid \$100 each. From this one can readily see

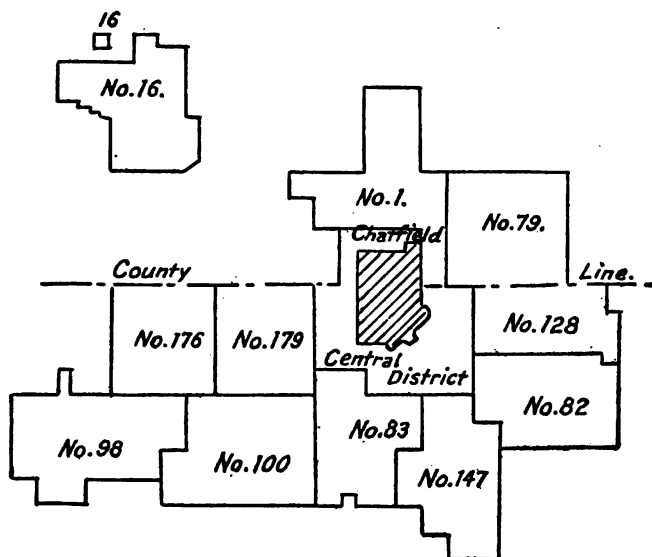


FIG. 2.—Map showing Chatfield, Minn., Associated Schools.

that the system offers many advantages at a surprisingly small final cost.

Chatfield Associated Schools.—Chatfield is another village in southeastern Minnesota, not far from Spring Valley. This school is organized in practically the same way as the Spring Valley school, and makes a strong appeal to country-life activities. The association is organized around a village of 1,300 people, 8 of the rural districts lie in Olmstead County and the remaining 3, together with the central district, are in Fillmore County.

(a) *School attendance.*—Supt. E. B. Forney gives his high-school enrollment for the past year as 114, with a daily attendance of 110. Five years ago the enrollment was only 55 and the average attendance 52. The town of Chatfield has made no growth in this period

of time, so that the increase is almost wholly from the associated districts. The 1914 freshman class had 41 members, 21 of whom live in the country. The children who attend the small schools early become accustomed to consider themselves as members of the central school. This provides enough vital interest materials to encourage them to remain in the small school through the eight years, after which many of them continue the work at the central school as regular students, or, at least, enroll for the annual three months' short course.

(b) *School supervision.*—The Chatfield associated board has the following rules for supervision of outlying schools:

The superintendent shall make as many tours of inspection as his work will warrant, in no case less than two visits to each school annually. The agricultural instructor must visit each school three times, the normal training instructor two times, and the domestic science instructor as often as convenient. This means that each school will receive at least eight visits during the year, and generally many more.

The supervising teacher must file a written report of each such visit with the superintendent, as in the affixed illustration:

Instructor.....	Date 12/16/13.
Hour of leaving Chatfield.....	12. 10
Hour of arrival at school Dist. No.....	1. 00
Number of minutes en route.....	50
Hour of leaving school.....	2. 25
Number of minutes at school.....	85
Conveyance, horse and buggy. Cost, one-half of \$1.25.	
Nature of instruction, if any is given: Demonstration—Capilarity as applied to soils.	
Criticism of school or teacher, if any: Discipline excellent. Word drill in reading and recitation in history were good. Pupils read by pronouncing words, and do not perceive the sentence as a whole. Phrase drill and drill in expression are sadly needed. The only preparation for the new lessons was "Take to—."	

These reports are made the basis of consultation with the rural teachers, who, in turn, must be present at three teachers' meetings a year, at the central school. These meetings include the consideration of all phases of the school work—among other things, the presentation of models in busy work by the normal training instructor. The rural teachers are paid \$1 for attendance upon each of these meetings.

(c) *Course of study.*—The school follows almost in detail the course of study outlined in Bulletin No. 47 of the State Department—Suggestive Outlines for Study Courses in Minnesota High Schools.

The attached report gives an idea of one class in animal husbandry:

Subject, animal husbandry. Year, 1912-13.

Teacher, ...

Texts, Craig: Plumb: Bulletins.

Weeks pursued, 36. Periods per week,

Length of period, 40. Number passed, 8.

Number failed, lab. double. State certificates issued, ...

Outline the work of the year as follows: Amount of text covered, with omitted parts mentioned, special methods, field trips, laboratory work, classics read, etc.

Stock judging: Placed a great deal of emphasis on this phase of the work.

Used text and charts in preparing the class for practice work in judging of all but cattle. Here I used lantern slides very freely. The stockyards provided more or less material.

Dairying: Talks and bulletins formed the basis of the recitation work. The laboratory work consisted of work with the separator and a thorough course in milk and cream testing.

Creamery problems were also taken up.

Breeds of live stock: Plumb and Craig were used as texts. Only the essentials were studied.

Poultry: Bulletins used as texts.

Feeding: Bulletins used as texts.

Practice in calculating rations.

Insects: A brief study of the most important facts about insects. Made special study of bees. Took class out to an apiary for demonstration.

Ventilation of farm buildings.

Agricultural bacteriology.

(d) *Three months' short course.*—A large number of young men and women above school age took advantage of the course during the past year. Farm machinery (with special attention to the gas engine), animal husbandry, farm crops, and soils were some of the agricultural topics considered. Among other subjects receiving considerable attention were farm accounting, letter writing, business forms, and composition work.

The day's work began at 12.30 and closed at 3.30. This would enable those in attendance to do their chores and other work before leaving for school.

(e) *Some extension work.*—The Chatfield school has been especially successful in making its efforts at outward work felt in the home and community. No more striking illustration of this can be given than that the school was immediately instrumental in inducing the farmers of the community to erect the Chatfield Farmers' Cooperative Laundry, which is probably the first of its kind in the United States. Few things can mean more to the farm women, in reducing the amount of real drudgery, than such a labor-saving plant.

The instructor of agriculture and his advanced students undertake to test corn and all kinds of grain for the community, making a nominal charge to cover actual expenses. "The corn testing alone," says Supt. Forney, "has many times more than paid the salary of the agricultural man."

In the same way milk and cream are tested and soil analysis made. Then farmers' clubs and institutes are organized and maintained. One of the most popular innovations is the lecture courses at the rural schools, at which lantern slides and other illustrations are used.

IV. CONSOLIDATION AND GENUINE COMMUNITY SCHOOLS.

The public beginning to realize wastefulness under the old system.—The people in many parts of Minnesota are wide-awake to the great waste of the small school. They are beginning to realize that even where the one-teacher school is modern in architecture, is well kept, and in charge of a well-paid teacher, it can not fully meet the demands of modern country life. Even under the most favorable circumstances the school can not approximate the work that it should do—viz, prepare the boys and girls of the community for satisfied, well-rewarded living on the country soil.

The fact is, in Minnesota as elsewhere, the one-teacher school does not offer rural children what they need to-day. On account of this, real interest in school work is poorly sustained, and the older pupils too often leave school long before completing the eighth grade. No thinking person would expect anything better than we are getting from the one-teacher school system. Such schools were very good as pioneer schools in pioneer communities, but as schools seeking to be of assistance at this time of real husbandry farming they are distinct failures.

Association of schools has done much to correct these conditions in many parts of Minnesota. In others all the children of the com-

munity are being brought under one roof, in a centrally located, well-organized school, comprising the usual eight years of elementary work, together with four years of cultural and industrial high-school work.

Minnesota consolidated schools becoming effective community centers.—Much of the Minnesota consolidation has been well done. This is fortunate. In some States, unfortunately, consolidation has meant only the merging of a number of small schools into a large one, and providing the new school with the traditional town school course of study. If consolidation is not done well, it had better not be done at all. And to be done well the new school's course of study, while offering the broadest general culture, must somehow be rooted to the soil, and its activities must reach beyond the four walls of the school into the entire school community to do the educational work of the whole people.

In a number of the consolidated school communities which came under the investigator's notice in Minnesota, the country folk are getting at home many of the social-recreational attractions that they formerly sought in town. The schools are becoming social centers. In many places the assembly halls are used for regular country rallies of various kinds—here are held the extension lecture courses, the neighborhood social gatherings, the farmers' institutes, boys' and girls' clubs, mothers' meetings, and other meetings of similar nature. In this way the new schools are able to provide modern substitutes for many of the rural activities that disappeared with our transition from the household economy stage of farming to the present stage of exploitation and beginnings of husbandry farming.

Consolidation easily attained because of liberal laws.—The Holmberg Act went into effect April 18, 1911. The new law makes it reasonably easy to effect consolidation by having eliminated the more or less prohibitive conditions formerly in use, and adding, instead, liberal State-aid inducements.

Several States which have striven to consolidate their schools have failed on account of unreasonable laws; and others have been slow to act because they have had no State-aid features to offer as an inducement for change. The special features of the Minnesota law may be summarized as follows:

1. Twenty-five per cent of the resident freeholders only is required for petition to consolidate. Under the old law a majority was required.

2. When the election is called to vote on the proposition to consolidate, such election is held at one centrally located polling place, and a bare majority of all the votes cast is sufficient. Under the former act the districts voted separately, which made it vastly more difficult to get the requisite majority.

3. It sets certain high standards for teachers and school equipment that must be met before the new organization can be recognized by the State authorities or aid granted under the law. Thus:

(a) The same high standards of preparation and fitness must be maintained for teachers in the consolidated schools as in the high and graded schools in villages and cities.

(b) Principals of consolidated schools, in addition to the above requirements, must secure the special indorsement of the State superintendent of education as to fitness for the particular position sought.

(c) Fully equipped departments must be maintained for instruction in agriculture, manual training, and domestic science.

4. It authorizes the State superintendent of education to establish and maintain strict requirements for building construction and equipment, and for transportation of pupils.

5. Finally, the law provides very liberal State aid as an inducement for rural communities to reorganize their schools according to the above-mentioned standards.

State aid the great spur.—It is only just that State aid should be granted as a reward for aggressive educational enterprise, to stimulate a community to exert itself to build up the best kind of school. The liberal State aid offered for compliance with the conditions of the Holmberg law has acted as a wholesome stimulus, and made consolidation possible in many communities where this would otherwise have been impossible.

The schools of the State are classified, for purposes of receiving aid, as A, B, and C. They must be in session at least eight months and be thoroughly organized. They must also have modern, sanitary schoolhouses and suitable equipment. The schools of class A must have at least four departments; those of class B at least three departments; and those of class C at least two. Pupils living more than 2 miles from the school are transported at public expense, or their board and lodging may be paid if this is found more economical and convenient.

Schools under class A receive, annually, State aid amounting to \$1,500; those of class B, \$1,000; and class C, \$750.

In addition to the annual aid, a school in any of these classes may receive special aid in the construction of a modern building equal to 25 per cent of the cost of the building, provided that in no case shall any district receive more than \$1,500 for this purpose.

Degree of success in consolidation dependent on proper safeguarding.—The Minnesota law very wisely charges the State superintendent of education with the great responsibility of formulating and enforcing the rules and regulations under which the schools may receive aid and recognition under classes A, B, and C. Many States have a

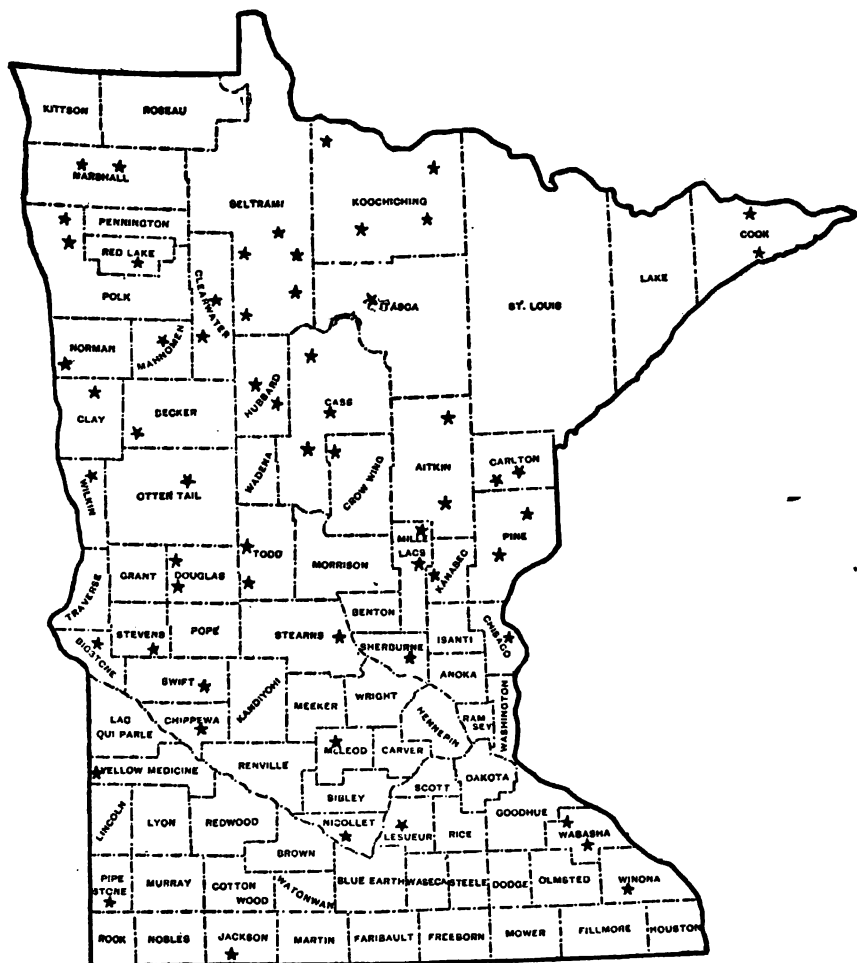


FIG. 3.—State map of consolidated schools.

larger number of consolidated schools than has Minnesota; but few, if any, have better consolidated schools.

Says ex-Rural School Commissioner E. M. Phillips:

The success of the movement will not lie alone nor chiefly in the number of consolidations accomplished, but rather in the degree of real improvement in rural schools secured through the application of the law.

With this in view the State department has formulated a complete set of regulations for each of the three classes of schools, which are strictly enforced. They include preparation and special fitness of teachers; plans and specifications of buildings; building sites, water and drainage; school equipment; rules for conveyance of pupils; and course of study. These regulations are given in detail in the appendix.

Progress in consolidation both rapid and substantial.—As was said above, the State had only 9 consolidated schools previous to 1909. In 1912 there were 69. In 1912-13 the number increased to 75; in 1913-14 to 83; and at the time of writing it is 116, with several groups of districts in the process of organizing. The statistics from 30 of these consolidated schools are given below, to convey to the reader some idea of the progress that is being made. It will be understood that the table represents only about one-fourth of all the consolidated schools in the State.

Statistics of 30 consolidated schools, for the school year 1911-12.

Expenditures for consolidated school buildings.....	\$200, 548
Total assessed valuation.....	\$5, 483, 773
Total number children enrolled.....	3, 906
Total number children transported.....	932
Total cost of transportation.....	\$18, 414
Average cost per child per year for transportation.....	\$19. 75
Average cost of schooling per child per year including transportation....	\$35. 65
Total cost of maintaining schools, including interest on bonded debts....	\$139, 252
Total amount contributed by the State toward this cost of maintenance..	\$78, 900
Total amount left to be raised by local taxation.....	\$60, 352
Average length of transportation routes (longest distance any child rides to school).....miles..	4½
Total number routes maintained.....	60
Average number children per wagon.....	15
Largest number in any wagon.....	29
Smallest number in any wagon.....	2
Average monthly salary of drivers.....	\$40
Number of schools maintaining at least one year of high-school work.....	21
Number of pupils in high-school classes.....	395
Number of accredited State high schools.....	3
Number of accredited State graded schools.....	11
Number of school days before consolidation.....	156
Number of school days after consolidation.....	175
Average area of consolidated districts.....sections..	35
Total number of separate districts combined to form 30 consolidated schools.....	141



A. CHATFIELD ASSOCIATED SCHOOLS.
Short-course boys in farm machinery class.



B. SAUK CENTER SCHOOL FARM.
Winner in central Minnesota corn contest.

The secret of the substantial growth of consolidation lies in the fact that the new schools fulfill the promise of providing the right kind of education for rural communities.

In equipment, including building, school farm, and laboratory facilities, in courses of study, and aggressive extension work, the consolidated schools are so much like the associated schools, described in detail above, that their repetition is unnecessary here.

V. INDUSTRIAL EDUCATION AND RURAL SCHOOL PROGRESS.

The industrial subjects and new school interest.—The gravest charge against the one-teacher rural school has been its failure to sustain the pupil's interest. This is due to the fact that it is unable to provide the kind of education demanded by the conditions of modern agriculture. It is time to realize that a school which answered well enough the needs of a pioneer civilization, need not, on that account, be expected to do the same for a generation of commercial farmers—indeed, it can not. The one-teacher school is the American pioneer school. As a nation the United States has passed the time when the farm home produced whatever the family group needed in the way of food, clothing, and tools. In the days of homecraft the schools could devote all their time to the cultural book elements, for then the manual industries were taught at home. Now, on the other hand, the average home can no longer teach these subjects. The schools must take over the new responsibility by offering courses in agriculture, household economics, manual training, and other vocational subjects.

The Minnesota schools, like schools elsewhere over the country, are striving to make all their activities more practical than they have been. The courses of study, which formerly had for their sole aim to prepare pupils for a higher school lying beyond the reach of the large majority of the pupils, are being reorganized and designed to provide both knowledge and skill, and to fit for immediate life activities. To quote the words of State Supt. C. G. Schulz:

There is a hopeful lack of uniformity, both in subject matter offered and in plans of instruction—a tendency to permit community needs, standards, and purposes to find suitable expression in the new public school curriculum. While protecting the vested rights of children to such schooling as will leave open every possible door of advancement for the exceptionally ambitious and capable, there is evident, in the recent administration of public schools, assurance that the large majority of pupils who are never to receive training beyond the high school shall be sent out equipped to fill acceptably some useful and reasonably remunerative place in our great economic organization. In all this there is promise of an improved citizenship. The present generation of school children must, it would seem, bring into our civic body an under-

standing of the necessity and the dignity of labor, well-established habits of industry, the tendency to do all work systematically, accurately, intelligently, and honestly, and a disposition to understand the economic problems of the day, which should make for improvement of industrial conditions.¹

Satisfactory progress in industrial education under the Putnam and Benson-Lee Acts.—The last few years have seen the establishment throughout Minnesota of a remarkable system of industrial high and graded schools. Some are ranked as State high schools, some as Holmberg consolidated schools, and some as associated schools.

Of these schools, 136 are organized under the Putnam Act and the Benson-Lee Act as industrial high schools. They become thriving local centers for a varied community work. Of first importance appear the regular school courses in agriculture, household economics, and manual training. But scarcely less so is the variety of short courses for young and old, and the agricultural extension courses given in cooperation with the State college of agriculture and the three secondary State schools of agriculture.

It is well to lay stress here on the fact that, while Minnesota has upon its statute books sane and liberal aid laws designed to encourage industrial instruction, the present degree of excellence of the schools could not have been attained had not the State been exceptionally fortunate in its educational leaders, who have guided and restrained, in season, the progressive school policy of the State, to the end that all the schools of the State are cooperating to extend the usefulness of the new system to the remotest precincts of the State.

The following figures show graphically the rapid growth of industrial instruction in State high schools during the last few years:

TABLE 3—*Students enrolled in industrial subjects, 1908-1914.*

Subjects.	1908-9	1909-10	1911-12	1912-13	1913-14
Manual training.....	4,223	4,770	6,892	7,064	7,350
Cooking.....	637	1,267	3,662	4,795	5,799
Sewing.....	994	1,616	4,587	5,637	6,680
Agriculture.....	.....	1,331	2,961	3,631	4,053
Total.....	5,864	8,984	18,102	21,127	23,882

Statutory requirements for industrial aid.—At this time 40 high schools and 2 graded schools receive the annual special aid of \$2,500 under the Putnam Act, and 81 additional high schools and 15 additional graded schools receive the special industrial aid of \$1,800 under the Benson-Lee Act. These schools, in addition, receive aid as State high schools, or as consolidated or associated schools, and some of them for maintaining training departments for rural teachers.

In order to receive the \$2,500 aid under the Putnam Act, a school must maintain distinct departments in agriculture, household

¹ Seventeenth Biennial Rept. Dept. Pub. Instruction, 1911 and 1912, p. 22.

economics, and manual training; while the requirements for the \$1,800 aid under the Benson-Lee Act are a distinct department of agriculture and a department in either household economics or manual training.

The other important statutory requirements are:

1. The schools must employ specially trained instructors in agriculture, household economics, and manual training.

2. The \$2,500 aided schools must maintain in a high state of cultivation not less than 5 acres of land, for school gardens and experiments and demonstration purposes.

3. The schools shall organize short courses, whenever deemed advisable, for young men and women who can not attend school during all of the regular school year.

State high-school board charged with maintaining regulations for industrial aid.—This body is representative of the most important educational interests in the State. It comprises the State superintendent of education, the president of the State university, the president of the normal school board, and two other members appointed by the governor. The board prescribes the regulations under which aid may be asked and awarded; it outlines the fundamental principles of the industrial courses of study; it sets the standards of preparation and experience of the instructors; and specifies the necessary school equipment.

(a) *Courses of study.*—The high-school board has wisely refrained from prescribing a detailed, standardized course of study for the schools. The scope of work alone is outlined. The final content, methods of practice, etc., are left entirely to the initiative and experience of the local instructors, who may at any time call for the assistance and advice of the several inspectors of the board and other central school authorities.

This freedom to develop the study courses to local needs is one of the most valuable features of the Minnesota system; especially as this seems to be accomplished without loss to the homogeneity of the working whole.

(b) *Instructors.*—The board fixes the number and qualifications of the industrial teachers. It limits the number of subjects they may teach and the number of their classes. It prescribes that agriculture instructors shall be paid by full calendar years, and otherwise prepares the way for effective teaching.

The details of State-aid requirements prescribed by the State high-school board appear in the appendix.

Comments on the industrial subjects.—It is impracticable to go into the details of the variety of industrial courses offered in the large number of State-aided schools. A few comments of a general nature will suffice.

(a) *Agriculture*.—At least 140 schools have well-equipped departments in agriculture, taught by graduates of standard agricultural colleges.

The agricultural course is a cumulative growth, beginning as nature study in the early grades. Much satisfactory work of this kind can be observed. Nature study is not taught as a separate subject, but leavens all subjects. This prepares the children for formal textbook work in agriculture, which generally begins with one period a week in the seventh grade and is continued through the eighth grade. The first-year high-school class ordinarily studies farm crops and the second-year class live stock. The best-equipped schools offer in their third and fourth years work in soils and farm management. In these schools the science courses are taking on more and more of the practical trend. Thus, for example, agricultural botany and agricultural chemistry are supplanting formal botany and chemistry.

The demand, at high salaries, for agriculture-college men to take charge of the new agricultural departments has attracted well-prepared instructors from many States. At this time 20 States and Canada are represented on the lists. All of them have added new inspiration and introduced new things. Mr. George B. Aiton, in speaking of the variety of work in the agricultural departments, says:

The work in farm crops varies properly in different parts of the State. Under the influence of Ames, to which we are much indebted, special work in corn leads off in the southern part of the State. In the Red River valley wheat comes first. The third place in classroom and laboratory attention is held by potatoes. The more enterprising instructors enrich schoolroom instruction by a careful study of elevators, flouring mills, and the growing crops of farmers. One instructor reports that his boys, 10 in number, were provided with bicycles, and did a large part of their study in the fields of the farmers within a radius of 6 miles. These are the boys that breakfasted on wienerwursts by the roadside one morning at 6 o'clock, surveyed, husked, and weighed a prize acre of corn, and were back in school by the middle of the forenoon. The activity displayed by boy scouts can be transferred to agriculture if the instructor knows how to lead.¹

(b) *School farms*.—Under the law each school drawing special aid for agriculture must provide a school farm for experiment purposes. A study of these farms discloses extremes in equipment and upkeep. Many have good barns and sheds and own their own teams and necessary machinery. Some even have a limited number of cattle, sheep, hogs, and poultry. This, however, is the exception. The classes in animal husbandry usually depend on neighboring farms for these first-hand studies. A number of instructors are able to make the farm crops pay for all outlays. At Spring Valley, mentioned above, the 16-acre farm netted last year a profit of nearly \$200, but this is unusual. Where the school authorities are obliged to hire teaming

¹ Twentieth An. Rep. State High Schools of Minn., 1913, p. 57.

done and have the farm at some distance from the school, the whole undertaking easily becomes burdensome. The success or failure of the school farm depends very largely on the degree of constructive ingenuity and tact of the agricultural instructor.

(c) *Extension work.*—The Minnesota system is broad enough to include the education of all the people, young and old. It works on the principle that education is a life process, and that all the educative machinery of the State shall be at the disposal of the public at all times to assist them solve their life problems. The extension

**EXTENSION COURSE IN SEWING,
CHATFIELD ASSOCIATED SCHOOLS.**

PURPOSE.

To afford young women who can not attend school the opportunity of pursuing a short course in sewing.

PLACE.

Sewing room in high-school building.

TIME.

The first and third Friday afternoons of each month, 1.15 to 3.30. The first class will meet October 17, 1913.

OUTLINE OF COURSE.

The course in sewing will be as practical as possible and will consist of simple garment making, use of patterns, repairing, and a brief study of textiles.

At the request of the class the above course of study may be subject to change.

All persons interested in the course should communicate with Miss Clara M. Jacobson, director of the course, or with E. B. Forney, superintendent of schools.

department of the State College of Agriculture may be considered at the head of the outward work of the schools. The county agricultural experts, of whom Minnesota is getting an increasing number, and the agricultural instructors of the high and graded schools also lend valuable assistance. The State-aided schools do their most active work in the formation of farmers' clubs, in giving advice in farm home construction, building silos, pruning and spraying orchards, cow testing, inoculation against hog cholera, milk testing, seed germination, holding farmers' institutes, and encouragement of new social-recreational activities and cooperative enterprises.

Agriculture short courses play an important part in the new schools. They will be discussed later.

(d) *Household economics*.—None of the industrial departments is more popular than this. More than 12,000 students in State-aided village and rural schools take courses in some or all phases of household economics. The large consolidated high and grade schools offer complete courses, extending over eight years, usually beginning with the fifth grade. The associated schools and central schools in

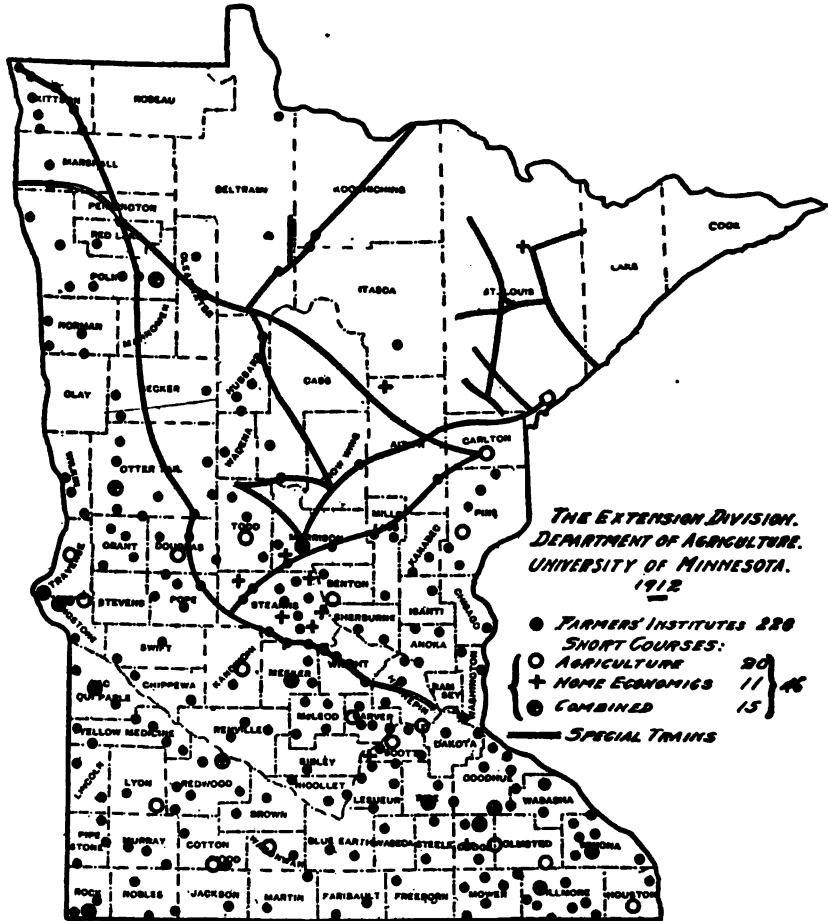


FIG. 4.—Extension work in Minnesota.

the northern undivided districts do much to direct these courses in the small rural schools.

The classes in cookery waste little time on making candies and indigestible salads. The wholesome in food and everyday practical things in home life receive most attention. The course of study given below is from the consolidated school at Grand Rapids:

Grade 5. Model and plain sewing; one 90-minute period per week; method—discussion, demonstration, practical work by pupils.

Grade 6. Plain sewing, repairing, and textiles; one 90-minute period per week; method—same as for fifth grade.

Grade 7. Sewing and textiles; one 90-minute period per week; use of patterns, making aprons, corset covers, crochet work; method—discussions, demonstrations, and practical work of pupils.

Grade 8. Grade cooking; one 90-minute period per week; classification of foods; experiments with proteids, carbohydrates, and fat; practical work in cooking and serving.

First year, high school:

Cooking—Two 90-minute periods per week; planning of meals, use of left-overs; practical work in cooking and serving.

Food study—One 45-minute period per week; food studied according to the following outline—physical composition, chemical composition, distribution, methods of production, methods of preparation, digestion, absorption, food value, and cost.

Plain sewing—Three 45-minute periods per week; use of patterns; study of textiles and garment making. Garments made: Cooking apron, corset cover, drawers, nightgown, underskirt.

Second year:

Dress making—Seven 45-minute periods per week for 26 weeks; use of patterns; selection of materials and styles. Garments made: Plain waist, shirt-waist, skirt, woolen school dress, gingham school dress, afternoon dress.

Art needlework—Seven 45-minute periods per week for 6 weeks; art needlework stitches, and crochet; hemming table linen.

Spring millinery—Seven 45-minute periods per week for 6 weeks; making frames; covering frames; making and trimming hats.

Third year:

Advanced cooking and serving—Two 90-minute periods per week for 26 weeks.

Home nursing—Two 90-minute periods per week for 6 weeks; recitation work, practical work with bandages.

Household management—Two 90-minute periods per week for 6 weeks; recitation work.

Dressmaking—Three 90-minute periods per week for 38 weeks; advanced work.

Garments made; wash dress, wool dress, graduation dress, class-night dress.

(d) *Manual training*.—In the best-equipped schools the work begins with the fifth grade and requires usually one double period a week throughout the last three years of the elementary school. In the high school more time is required; as a rule, one double period a day is necessary throughout the entire course. The manual-training shops are well equipped. Many schools have forge rooms, and even the rural schools in school associations and undivided districts are generally equipped with benches and tools.

There is a marked effort in these classes to include as much as possible of the great out-of-doors in the list of articles made. Mr. George B. Aiton, on his rounds of inspection, has encouraged this. He insists that, while the pupils have not, perhaps, devoted too much time to making articles of a purely domestic nature, such as Morris chairs, mission furniture, benches, stands, desks, chests, match scratchers, ironing boards, etc., they have not devoted enough time to

the rugged outside world. But a reaction has set in. As Mr. Aiton says:

The machine shops of our large school are delightfully masculine. Not a few instructors are launching out in a practical way. The younger boys are making sleds, toy windmills, waterwheels, bird houses, tent pins, athletic poles, and a variety of other articles that appeal to the mind of the active lad. In several schools I have noticed activity in the construction of poultry coops, crates, brooders, and nests. Flytraps and beehives are made in spring. Tool handles, ladders, nail boxes, tool chests, and saw horses are in evidence. The list of distinctively farm articles includes milking stools, bag holders, gates, feed racks, wagon poles, wagon jacks, wagon boxes, grain tanks, hay racks, neck yokes, and whiffle trees. The manual-training class assists the agricultural department by making tables and benches for the short course, as well as corn trees for drying seed corn, corn trays for use in judging corn, and germination boxes for seed corn. The blacksmith shop contributed a variety of latches, spikes, bolts, chisels, and hinges. Valuable instruction is given in laying out and cutting rafters and risers for stairways and in constructing barn models. I was pleased to hear one instructor say that if some farmer would dump the dimension stuff for a barn on the school grounds he would have the boys get out the framework for the entire building.¹

Short courses for the whole community.—The winter short courses offered by the Putnam and Benson-Lee Schools are rapidly becoming a prominent feature in the new community schools. It is a species of continuation schools for people regularly beyond the reach of school. There is no maximum age limit. Students may enroll from 15 years of age, or thereabouts, up toward 99 years. Anyone who can profit by the courses is made welcome. The courses are 3, 4, 5, and 6 months in length, varying in different schools. These are regularly intended for youth of the community beyond school age. Six-day courses for the parents of the community are popular in many places during the last week of the regular short courses.

The time is chosen to suit the farmers. The courses begin in November, after the fall work is done, and close in March, before the rush of spring work begins. The school hours are from 10 o'clock a. m. to 3 o'clock p. m., which allows time for chores at home morning and evening.

The daily routine includes a general brushing up in the elementary subjects. Farm arithmetic and accounting hold prominent places. Farm law, special phases of agriculture, blacksmithing, carpentry, cooking, sewing, and other subjects are presented by enthusiastic instructors, many of whom are secured solely for the short courses. Each student does the work he needs the most.

Says Mr. George B. Aiton:

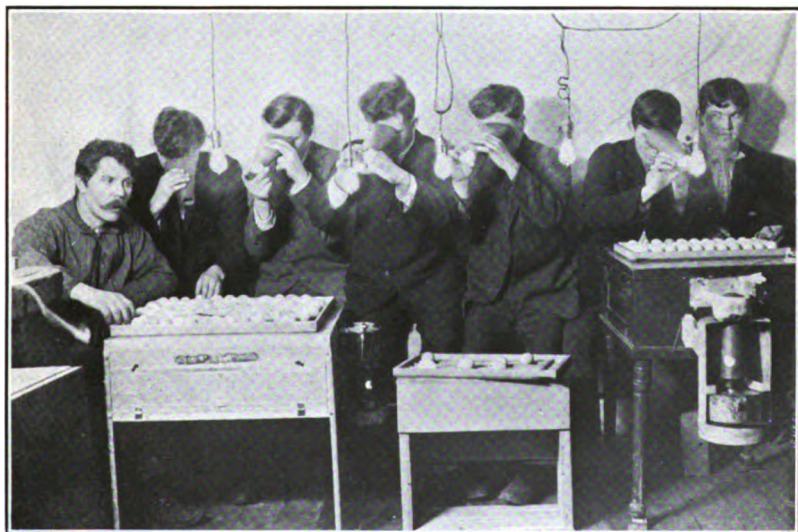
It is not unusual to find an agricultural giant plying the trade of Vulcan at his ease one hour, while the next finds him perspiring over the sonorous page of a third reader. If any part of our work demonstrates that the Minnesota high-school system has finally got down to business, it is the winter short courses now going on in a hundred schools.

¹ Twentieth An. Rept. State High Schools of Minn., 1913, p. 49.



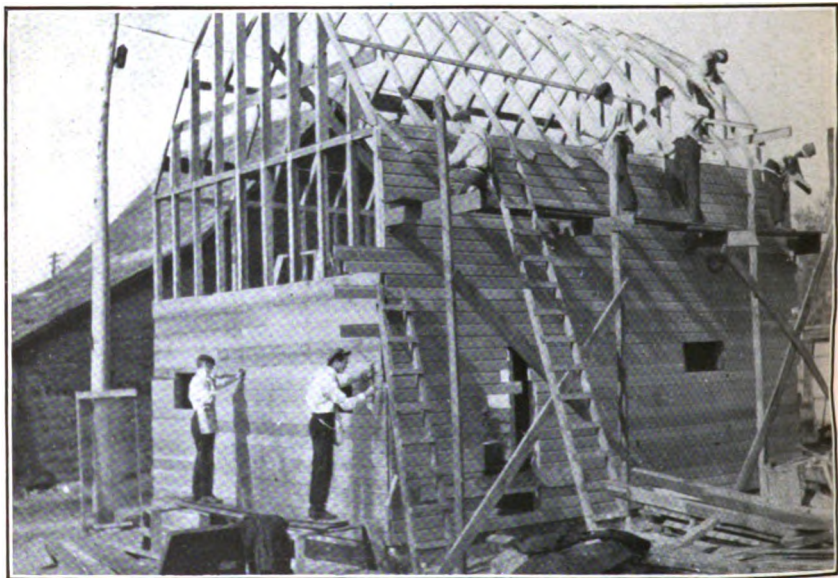
A. STUDYING STOCK.

Farmers' short course at Sauk Center. Thus are met the needs of the people beyond ordinary school age.



B. TESTING EGGS FOR FERTILITY.

Short course, associated schools of Sleepy Eye.



MANUAL TRAINING CLASS IN LE SUEUR HIGH SCHOOL.

The boys are building a small barn on contract.

DAILY PROGRAM OF THE SHORT COURSE OF THE MILACA ASSOCIATED SCHOOLS.

Hour.	Subject.	1st week— Nov. 6-Nov. 10.	2d week— Nov. 13-Nov. 17.	3d week— Nov. 20-Nov. 24.	4th week— Nov. 27-Dec. 1.	5th week— Dec. 4-Dec. 8.	6th week— Dec. 11-Dec. 15.	7th week— Dec. 18-Dec. 22.	8th week— Jan. 8-Jan. 12.	9th week— Jan. 15-Jan. 19.
10.00 to 10.45.	Agriculture (Boys and girls). DAILY.	Soils. Cultivation.	Plant foods. Fertilizers.	Corn culture. Selection. Improvement. Testing. Judging.	Forage crops. Clover.	Potato culture. Cereals. Judging.	Crop rotation. Crop improve- ment.	Dairy breeds. Types. Feeding. Improvement. Care.	Breeds and types of live stock.	Animal feeding. Animal breed- ing.
10.45 to 12.15.	Cooking (For girls). DAILY. Manual training (For boys). DAILY.	Study of foods. Scalloped apples. Hard sauce. Coffee. Sewing. Planing.	Potatoes. Vegetables. Sharpening tools. Timber splicing.	Breakfast foods. Bench hook. Joints.	Rice. Bread. Feed trough. Hammer handles. File handle. Bread board.	Rolls. Jelly. Eggs. Bread board. Sharpening bits.	Eggs. Custard. Miter box. Pipe fitting.	Meats. Pot roast. Forge work. Cold chisel. Tempering.	Soup. Tomato sauce. Forging punch. Forging gate- hook.	Hash. Ginger bread. Fruit pudding. Singletree. Doubletree. Forging links.
1.30 to 2.15.	Sewing (Girls). MONDAY, WEDNESDAY, AND FRIDAY. Business arith- metic (Boys). MONDAY, WEDNESDAY, AND FRIDAY. Farm accounts (Boys and girls). TUESDAY AND THURSDAY.	Stitches.	Hems. Gathers. Bands. Seams. Rapid calcu- lation. Multiplication and division.	Sewing bag.	Fractions. Multiplication and division.	Kitchen apron.	Dresser scarf.	Nightgown.	Nightgown.	Carpet cover. Buttonholes. Liquid meas- urements.
2.15 to 3.00.	Business forms and Business law (Boys and girls). DAILY.	Penmanship. Letter writing.	Debit and credit.	Debit and credit.	Daybook.	Daybook.	Ledger.	Ledger.	Trial balance.	Account with fields and crops.
		Penmanship. Letter writing. Orders for goods.	Bills. Invoices. Statements. Receipts.	Postal infor- mation. Express money order. Postal money orders.	Contracts.	Leases.	Mortgages.	Abstracts. Deeds.	Banking. Passbook. Check. Credit slip.	

DAILY PROGRAM OF THE SCHOOL COURSE OF THE MILACA ASSOCIATED SCHOOLS—Continued.

ONE WEEK FARMERS' INSTITUTE AND SCHOOL EXHIBIT.										
HOURS.	SUBJECT.	10th week— Jan. 22-Jan. 26.	11th week— Jan. 29-Feb. 2.	12th week— Feb. 5-Feb. 9.	13th week— Feb. 12-Feb. 16.	14th week— Feb. 19-Feb. 23.	15th week— Feb. 26-Mar. 1.	16th week— Mar. 4-Mar. 8.	17th week— Mar. 11-Mar. 15.	18th week— Mar. 18-Mar. 22.
10.00 to 10.45.	Agriculture (Boys and girls). DAILY.	Animal dis- eases. Poultry.	Dairy practice. Milk testing. Cream testing. Handling milk.	Dairy practice. Cow testing. Record sheet. Profitable cows.	Silos and silage. Barn plans.	Vegetable and fruit culture.	Plant diseases and pests. Weeds.	Farm man- agement. Marketing.	Care of farm machinery. Roads. Gas engines.	
10.45 to 12.15.	Cooking (For girls). DAILY.	Biscuits. Cold saw.	Oyster stew. Cakes. Brown bread.	Coffee. Cakes. Muffins. Pie.	Pudding. Cakes.	White cake. Sponge cake.	Ice cream. Cookies. Sals.	Bread. Pudding. Jellied prunes.	Veal cutlets. Care of kitchen.	
1.30 to 2.15.	Manual train- ing (For boys). DAILY.	Welding. Clevis. Tongs.	Sharpening pick and crow- bar, drills, etc.	Soldering. Making bolts. Ladder. Wagon reach.	Coat hanger. Book rack. Clock shell.	Towel roller. Drawer. Wagon tongue.	Tool chest or Wagon box or Hayrack.	Tool chest, Wagon box or Hayrack.	Tool chest, Wagon box or Hayrack.	
	Sewing (Girls). MONDAY, WED- NESDAY AND FRIDAY.	Drawers.	Fancy stitches. Patching.	Patching. Darning.	Underdrft.	Underdrft. Shirtwaist.	Shirtwaist. Shirt.	Dress.	Dress.	
	Business arith- metic (Boys). MONDAY, WED- NESDAY AND FRIDAY.	Dry measure- ments.	Weights.	Board measure. Masonry.	Lathing. Plastering. Papering. Painting.	Percentage and interest.	Interest.	Partial pay- ments.	Taxes. Partnership.	
	Farm accounts (Boys and girls). TUESDAY AND THURSDAY.	Account with fields and crops.	Account with garden.	Account with live stock.	Account with dairy.	Account with poultry.	Account with animal rationals.	Account with home.	Inventory.	
2.15 to 3.00.	Business forms and Business law (Boys and girls). DAILY.	Promissory note. Drafts.	Insurance and Corporations.	Petitions. Power of attor- ney. Agencies.	Wills.	Settling of estates.	Taxes for roads schools, etc. How levied and collected.	Land survey- ing. Townships. Sections, etc.	Highways. Legal tenders.	

VI. TEACHER TRAINING FOR THE RURAL SCHOOLS.

Schools where this training is offered.—The Minnesota rural schools draw their supply of specially trained teachers mainly from two sources: The professional department of the State agricultural college and the teacher-training departments in State high schools. The five State normal schools do not offer specialized courses for rural teachers, as practically their whole annual output is absorbed by the high and graded schools. A recent ruling of the State high-school board is to the effect that, beginning with the year 1915, "all new appointees for the elementary departments of high and graded schools must be advanced-course normal-school graduates." This is a progressive step for better teaching in these two classes of schools, but will mean that the State normal schools can have little or no time to devote to rural-teacher training.

The regular educational courses offered by the college of agriculture prepare teachers to instruct in agriculture and other industrial subjects in every variety of State high schools, including consolidated and associated schools. Special summer courses are open to rural teachers regularly at work in the field. Here, too, the industrial subjects are emphasized. Nearly 1,000 rural teachers annually take advantage of the summer courses.

The strong teachers of agriculture and other industrial subjects and principals of the new consolidated and associated schools must continue to come from the State agricultural college, and from similar colleges in other States.

Special training courses in high schools.—The largest immediate supply of specially prepared rural teachers will, however, have to come from State high schools legally authorized to offer rural-teacher training courses. Many educators have doubted the advisability of introducing professional work in high schools. Professionally prepared teachers for the one-teacher schools must, nevertheless, be provided in some manner, and no other institution seems better able to do the work at the present time than the high school.

Minnesota requires 9,000 teachers for its one-teacher schools. Less than 25 per cent of those now in service have received any professional training for their work. Here one encounters what is possibly the greatest weakness in the already unsatisfactory one-teacher school system. The evident reason for this lack of professional preparation is that teachers in these schools are permitted to teach on common-school certificates, issued upon passing an ordinary academic examination. A new certification law, requiring a minimum amount of professional work as resident students in recognized schools would go a long way toward correcting this weakness.

Such a law would also stimulate the work in the eighty-odd training departments in high schools, whose product now must compete, as it were, with the untrained teachers holding common-school certificates.

Weakness of the training departments as now organized.—The present organization and work of these departments are far from satisfactory, although considerable progress is being made. The most apparent weaknesses are, (1) students may receive a certificate to teach without having completed the four years of the high-school course; and (2) country-leadership subjects are largely left out of consideration.

In regard to the first point, it would seem highly desirable that no student should be granted the training department diploma with less than four years of work, i. e., no one should enter the training class until he has had three years' credit in academic work. It is highly desirable even that the regular high-school course be completed first and the training course come as a fifth or graduate year. In this manner the teachers would get a fair academic foundation and have a reasonable degree of maturity to meet the many problems of modern rural life.

Every rural teacher should have a good knowledge of rural life needs by having studied at least a beginning course in rural life problems, including elementary rural sociology and economics. Without some inspiration along such lines the teachers of the small rural schools will find it difficult to become such rural community leaders as are needed nowadays. The Minnesota training departments devote little time to this work, and even the new industrial subjects are not required, although encouraged. The State department of education has just added to its corps of specialists a supervisor of teacher-training departments in high schools. For this important position it has chosen one of the most energetic rural life workers in the country; so that the immediate future may see the work take a strong forward impetus in rural socialization.

Some of the requirements under the Minnesota law.—Teacher-training departments in high schools may draw aid in the sum of \$1,000 annually as soon as they have complied with certain regulations laid down by the State high-school board, among which are the following:

Quarters.—A suitable room, having not less than 650 square feet of floor space, shall be set apart for the exclusive use of this department. A second room, for the use of an ungraded model school, is desirable. Hall space and cloakrooms may be used for practice classes. The training department shall be in close connection with the grades. It shall be distinct from the high school, but shall not be located in a small, remote ward building.

Equipment.—A department library shall be provided for the study of geography, American history, and literature. Ten per cent of the annual State aid for this depart-

ment shall be expended each year for books and other equipment. To obtain credit, purchases shall be approved by the supervisor before they are made. Books bought for the general school library may not be credited to this department. The purchase of works in pedagogy and psychology shall be deferred until adequate primary material and classroom aids have been accumulated.

A paper cutter, manila paper, and a set of rubber printing type (\$3.50) shall be provided for the use of the department.

Instructor.—(a) *Qualifications:* The work shall be placed in charge of a special instructor holding a certificate granted by the State superintendent for this work. Such certificates will be granted only to teachers of approved experience, who seem to have special fitness, who have a knowledge of rural school conditions, and who, in addition, qualify by presenting one of the following:

- (1) An advanced diploma from a normal school of this State.
- (2) An indorsed diploma from the corresponding course of a normal school of another State.
- (3) A diploma from the college of education of the University of Minnesota.
- (4) A diploma from a reputable college or university.
- (5) A professional State teachers' certificate.

(b) *Salary:* The salary of such instructor shall be not less than \$750 a year.

(c) *Program:* The entire time of the special instructor shall be given to the instruction contemplated by the act.

One-half of the day shall be devoted to classroom work, arranged in four periods; the other to supervising practice work, overseeing the model school, directing the preparation of students for their practice work, directing reference work, guiding the students in the making of charts and the filling of scrapbooks with devices, programs for special days, memory gems, games, stories, outlines, and other matter for future use.

Enrollment.—(a) The enrollment in this department shall not exceed 20 for each instructor. The superintendent may, at his discretion, enroll students of sufficient maturity who are regular members of the high school and have not less than four high-school credits, or persons who have taught eight months and are recommended by the county superintendent. The superintendent shall raise the requirements for admission as rapidly as conditions permit and may limit the enrollment to 15. Preference shall be shown applicants whose preparation is superior. The superintendent shall have authority to dismiss students whose work is not satisfactory.

(b) Neither high-school students who desire to remove entrance conditions nor grammar-grade students shall be enrolled.

(c) Students enrolled for this special instruction shall give their entire time to the work. They shall not be permitted to join other classes or to carry outside studies, except that in schools which have proper facilities students in the training department may be encouraged to take up some work in agriculture, sewing, cooking, manual training, or drawing. A corresponding reduction may in such case be made from work in the academic studies.

(d) Students desiring to devote a part of their time to this work may be permitted by the superintendent to do so, but such students shall not be counted as enrolled. Their recitations shall not be allowed to interfere with the flexibility of the training department program, nor shall they be admitted at all should the enrollment of regular students reach 15.

(e) Instruction shall not be modified to meet the needs of students not regularly enrolled in this department.

Practical side of the training.—The board prescribes strict requirements for practice teaching under the regular grade teachers of the school. It also encourages the organization of model rural schools, and expects the student teachers to make frequent visits to near-by

rural schools under the guidance of their special instructor and the county superintendent. This phase of the work is well done in most schools. The regulations are:

Practice teaching.—Each student shall devote one-quarter day or its full equivalent to actual teaching. During that part of the day the student shall be a part of the teaching force of the school and on active duty as assistant to a grade teacher, according to arrangements made by the instructor of the training department. On the first morning of the school year the more capable students shall be assigned to assist the regular teachers in opening school in the different grades. Cloakroom supervision, hall duty, the correction of exercises, the oversight of seat work, tutoring, group work, and the instructing of sections of a grade—into which it may be divided for the purpose—are the usual forms of work. Mere observation has little value and shall be given no credit. If managed rightly, the subject knowledge gained through preparing for the recitation of groups, sections, or model school classes is more practical and does more to develop independence than the ordinary academic work of the department.

The first care of the instructor should be to organize the department as a teaching force, to get the students into the attitude of the teacher, to make them helpful and welcome in the school system. This done, the academic work may be organized with clearer insight. Students who are too immature to fall in with a scheme of this sort, too immature to assist pupils in seat work, or to hear an awkward boy read must not be enrolled in the training department. In the absence or illness of the teacher, two or more students may be put in charge of a grade room, but this shall not be construed as sanctioning any plan to have room work done by students while the regular teacher stands by.

Model school.—(a) The organization of an ungraded model school is encouraged. A principal, with as many assistants as are needed, may be detailed to take charge for a week or even a month. It is desirable that the organization of classes for the work be as nearly as possible the organization most practicable for an ungraded rural school. Such a one-teacher school can not be organized successfully into eight grades; it can be arranged better into three main groups—primary, intermediate, and advanced. Much of the instruction should be through general lessons in which all three groups take part.

(b) The daily program should be framed to serve as a model for a rural school. It should be changed from time to time to meet varying conditions, but whatever changes are made, much attention should be given to general exercises. Not enough of this kind of teaching has been done in the ungraded school. The student teachers should be made to see that, by careful planning, much can be accomplished in even a 10-minute period. All should help in planning the general lessons, and each should have an opportunity to act as teacher. By taking notes and collecting materials from day to day, each teacher can become well prepared to do this work in the country school.

(c) Primary pupils entering school at the opening of the spring term may be organized into a model school if so desired. The model school may be managed in such a way at any time as to afford relief to a crowded room or an overburdened teacher, but it shall in no case be constituted one of the grade rooms of the school so as to dispense with the services of a regular teacher.

Rural schools.—The training department shall connect closely with the rural schools. The county superintendent should be as frequent a visitor as his other duties permit. He should give the department practical talks. Arrangements shall be made for instructor and students to visit the rural schools of the vicinity. This is especially desirable at the opening of the term, to acquaint the students with the details of organization and classification as presented in these schools. The cost of transportation is recognized as legitimate expenditure of the special aid.

APPENDIX.

RULES AND REGULATIONS OF THE MINNESOTA STATE DEPARTMENT OF EDUCATION

Relative to the Consolidation of Schools under the Holmberg Act,
Chapter 207, Laws of 1911.

(A) FOR SCHOOLS OF FOUR OR MORE ROOMS.

I. TEACHERS.

(1) Beginning with September, 1913, the principal teacher must present to this office for approval credentials showing special preparation of not less than one year for teaching agriculture and manual training. School boards are advised not to make contracts with principals who have not secured the indorsement of the State superintendent. (The law requires that principals must at least be graduates of the advanced course of a State normal school.)

(2) At least one of the teachers of a class A school must be qualified to teach the elements of sewing and cookery and must have the written indorsement of the State superintendent.

(3) Assistant teachers are required to have the same qualifications as those of graded schools, viz, the teacher of the primary room must be an advanced normal-school graduate and must have had at least one year of special training. All other teachers must hold at least first-grade common-school certificates. High-school normal-department graduates are not qualified.

II. BUILDINGS.

(1) Before any steps are taken for the letting of contracts for the construction of buildings, all plans and specifications must be submitted to this office for approval. They must also have the approval of the State board of health. Such plans must contain provision for flush closets, a bubbling fountain on each floor, a central heating plant, fan ventilation, and lavatories in each closet. Buildings must provide suitable room for a library. There must also be provision for manual training and home economics, with floor space of at least 35 square feet for each pupil taking the work.

(2) In order to secure State aid for building, districts must furnish this office with vouchers for expenditures in the construction of the building.

III. BUILDING SITE, WATER, AND DRAINAGE.

(1) Site should be chosen for its central location, effective drainage, and general attractiveness.

(2) In communities where there is no public water supply tubular or driven wells must be provided to furnish water for drinking, closets, and lavatories. *A surface well will not be approved.* A pressure tank of sufficient capacity must be installed. A gasoline engine or other mechanical power must be provided for pumping water. The overflow from the drinking fountains is to drain over urinals. All overflow from toilets must be carried off by means of sewer or into a septic tank.

IV. EQUIPMENT.

Each room must have at least 100 square feet of substantial blackboard (preferably slate) and be seated with single desks, at least one row of which shall be adjustable. The district must purchase at least \$25 worth of library books annually and provide each grade with at least two sets of supplementary readers. Each of the two upper grade rooms shall have an 18-inch pendent globe, one full set of up-to-date maps, including a map of Minnesota, all in cases, one unabridged dictionary, and at least 10 abridged dictionaries.

V. TRANSPORTATION.

(1) Suitable conveyances, built under specifications furnished by this office, must be provided. Wagon specifications will be sent to county superintendents upon application.

(2) No consolidation will be approved under which children must be carried more than 6 miles. It is recommended that no plan be undertaken where children must be carried more than 5 miles.

VI. COURSE OF STUDY.

This will in general be the same as that at present followed in graded schools. This department issued an outline for industrial courses in September, 1912.

(B) FOR SCHOOLS OF LESS THAN FOUR ROOMS.

I. TEACHERS.

(1) Principals, under the law, must be holders of at least a first-grade common-school certificate. The indorsement of the State superintendent as to ability to teach industrial subjects is necessary.

(2) One of the teachers must be qualified to teach home economics.

(3) All teachers must be qualified as noted above for four-room schools.

II. BUILDINGS.

The regulations are the same as for four-room building, except that heating and ventilation requirements are the same as for a semigraded school.

III. BUILDING SITE, WATER, AND DRAINAGE.

(Same as for four-room building.)

IV. EQUIPMENT.

Blackboard, supplementary readers, library, and desk requirements are the same as for four-room building. The upper-grade room must have an 18-inch pendent globe, a complete set of up-to-date maps, including map of Minnesota, an unabridged dictionary, and at least 10 abridged dictionaries.

V. TRANSPORTATION.

(Same as for four-room building.)

VI. COURSE OF STUDY.

This will in substance conform to that at present employed in semigraded schools, except as to industrial work, outlines for which will be sent to county superintendents in September.

REGULATIONS OF THE STATE HIGH-SCHOOL BOARD

Relative to Schools Seeking Aid under the Putnam and Benson-Lee Acts.

1. APPLICATIONS FOR STATE AID.

a. Applications shall be made before the 1st day of August of the first year for which aid is asked on the blank form prepared for the purpose.

b. Each school must be listed provisionally by the high-school board before it begins work. If at the end of the first semester it has complied with the conditions, it shall be officially designated for that year.

c. Each school district of less than 18 sections listed for the \$2,500 aid is required to effect association with rural school districts so as to embrace within its territory at least 18 sections.

2. AWARD OF AID.

a. The annual award shall be made at the regular August meeting of the high-school board and shall be based on a compliance with the statutes and the rules of this board relative to amount of aid for which the school has qualified.

b. Each school qualifying for \$2,500 aid shall receive not exceeding \$2,500 per year, and in addition thereto \$150 per year for each associated rural school district, but in no case shall the total amount received by any such school exceed two-thirds of the sum actually expended upon such agricultural and industrial department as certified to the State high-school board.

c. Each school qualifying for \$1,800 aid shall receive not exceeding \$1,800 per year, and in addition thereto \$150 per year for each associated rural school district, but in no case shall the amount awarded exceed the actual expenditure of the school for an agricultural department and a department of home economics or manual training as certified to the high-school board.

d. In reckoning aid credit shall be given for (a) salaries of special instructors—in case part time is devoted to this work, corresponding credit shall be given; (b) equipment, including tools and apparatus; (c) supplies, including seeds; (d) labor and team work; (e) reference books; (f) extension work in rural schools and among farmers; (g) transportation of instructors.

3. COURSES OF STUDY.

a. The industrial courses required by law and covered by these rules shall be maintained throughout the school year.

b. The work in agriculture shall include: (a) A course based on textbooks, bulletins, and lectures. Agronomy and animal husbandry shall be given not less than a year each. It is desirable that botany, chemistry, zoology, and physics should be given an agricultural trend, but these subjects shall not be counted as a part of the four years course in agriculture. (b) A general course of one year to include gardening, fruit growing, dairying, and poultry raising. (c) A laboratory course, including physical examination of soils, preparation of weed-seed cases, testing of seeds, testing for butter fat, grain judging, stock judging, etc. (d) Special work along some line of local interest, such as dairying, corn breeding, small grain, potatoes, fruit, meat products, poultry, etc. The school shall not only maintain a standard of general efficiency, but shall develop strength in chosen specialty. (e) The organization of institute work in cooperation with extension division of the college of agriculture of the State university. (f) A short course of three months. In case local conditions are unfavorable the course may be discontinued with the written consent of the inspector.

4. INSTRUCTORS.

a. In a school receiving \$2,500 aid the corps shall include not less than three special instructors, one qualified to teach agriculture, one shopwork, and one home economics. The entire time of each instructor shall be devoted to his department.

b. In a school receiving \$1,800 aid two industrial instructors shall be employed, one qualified to teach agriculture and one to teach either home economics or manual training. These instructors shall be in addition to the instructor per 30 students required for State high-school aid.

c. The principal of a graded school having not to exceed five grade teachers may teach one industrial subject. In such case he must have the qualifications of an industrial teacher.

d. The agricultural instructor shall be employed for the full calendar year of 12 months. The year of employment shall begin August 1. His entire time shall be given to the teaching of agriculture and extension work, provided that in schools receiving \$1,800 aid the instructor in agriculture may, with the written consent of the inspector, be permitted to teach one additional subject, particularly one related to agriculture. This rule shall not prevent the principal of a graded school from acting as instructor of agriculture.

e. The instructor shall be provided with laboratory facilities. During the fall and the spring of the year he shall have not less than a continuous half day for outside and extension work. He shall make a close study of local conditions and attend markets, horticultural meetings, meetings of creamery and stock-breeding and other associations, and such other gatherings as afford opportunity to make the acquaintance of farmers.

f. The instructor in agriculture may not direct manual training, but in schools receiving \$1,800 aid instructors in manual training or home economics may, if qualified, devote part time to academic work. The work in home economics may be divided between two instructors, one for sewing and the other for cooking.

g. The legal qualifications of instructors shall be those prescribed under "Requirements in Regard to Certificates of Teachers in High and Graded Schools."

5. DEMONSTRATION PLAT.

Each school receiving \$2,500 aid shall maintain a demonstration plat of 5 acres or more. This plat shall be owned by the school district or be held under a long lease. It must be kept free of weeds and in a state proper for cultivation and for demonstration purposes. The border shall be seeded down into a sward. A part of the plat shall be devoted to a permanent rotation of field crops, of which a record shall be kept by the instructor.

6. EQUIPMENT.

a. Agriculture. The instructor shall have one or more rooms exclusively for this work. The classroom shall be equipped with a well-arranged reference library, including bulletins and facilities for displaying agricultural products. The laboratory shall be provided with apparatus for testing soils, milk, and seeds. The agricultural quarters shall be easily accessible to visitors or persons bringing in farm products. An outside entrance is desirable.

b. Home economics. (a) In schools receiving \$1,800 aid a special room shall be fitted up with tables, cooking utensils, table service, cupboards, and conveniences for storing kitchen supplies. An adequate equipment shall also be provided, including cutting tables, one or more sewing machines, material suitable for patterns, the materials required for exercise, and such implements as are required in the usual sewing room. (b) In schools receiving \$2,500 aid the quarters shall include a dining room or administration room, a kitchen laboratory, and a room equipped with tables and machines for sewing.

c. Manual training. A special room for woodwork shall be provided with benches and the necessary tools. Material for exercises shall be supplied free of charge. Lumber for articles taken home may be charged for at cost. Schools receiving \$2,500 aid shall provide facilities for blacksmithing.

d. The rooms used for industrial purposes must be approved by the inspector. Where but one room is used for a department not less than 700 square feet of floor space shall be considered adequate, and all rooms must be properly lighted and well ventilated.

e. Schools receiving \$2,500 aid shall maintain a farm building large enough to store supplies, tools, and machinery, in case the plat is remote from school building.

7. CREDITS.

If the work is done satisfactorily, two periods given daily to an industrial subject or subjects for one year shall count as a credit.

TYPICAL SHORT COURSES

Offered by the Putnam and Benson-Lee Schools.

The following is an outline of the 14 weeks' short course offered at the Benson-Lee School, at Red Lake Falls, in 1912:

PURPOSE AND NATURE OF THE COURSE.

There are many young people in Red Lake Falls and its surrounding farming territory who have not had adequate educational opportunity. Home duties prevent their attendance at school for a full school year of nine months. The rural school, because of its limited facilities, they have outgrown and do not desire to attend. For these young people the course outlined on these pages is offered. It may seem by reading through the brief outlines of the various subjects in the course that the aim is to keep the work intensely practical in nature.

FARM ACCOUNTS.

Three periods per week.

The course will be a combination of very practical arithmetic and farm accounting. Under farm arithmetic acreage of fields, contents of bins, cribs, and tanks, lumber measurements, interest, discounts, and other topics of equal importance will be treated. Under accounting a simple system of bookkeeping for farm use will be taught.

AGRICULTURE.

Three periods per week.

The time in this work will be divided between actual exercises in milk testing, seed testing, grain and stock judging, rope splicing, etc., and a study of the same topics from a practical textbook and the school's agricultural library and bulletins.

ENGLISH.

Two periods per week.

The writing and speaking of correct English, use of capitals, punctuation, and letter writing will occupy the time devoted to this subject.

LOCAL GOVERNMENT.

Three periods per week.

A study will be made of the school district, the township, the county, and the State, both as to organization and administration.

BUSINESS LAW.

One period per week on the subjects of contracts, negotiable instruments, riparian rights, transfers of real property, etc., simple business law with which every citizen should be equipped.

COOKING

Two double periods per week.

The time devoted to cooking will be spent upon the actual mixing and baking of doughs and batters used in the making of bread, cakes, muffins, etc., and in the preparation and serving of meat. The splendid cooking equipment installed a year ago will be used in this work.

SEWING.

Three periods per week.

Garments, such as aprons, undergarments, shirt waists, and dresses will be made in this sewing class. Materials used in these exercises to be furnished by the students, and the garments will be their property after completion.

CARPENTRY.

Three periods per week.

The articles which will be recommended for choice in the woodwork class will be the milk stool, singletrees, evener, wagon jack, wheelbarrow, hayrack, and other useful articles. One of the best tool and bench equipments owned by the schools of northwestern Minnesota will be available for the work in carpentry.

BLACKSMITHING.

One double period per week.

The young men will be occupied in blacksmithing in making useful articles such as staples, barn-door hooks, chains, welding, repair work, work with stocks and dies, drill, etc. The board of education of Red Lake Falls installed in September a fine forge equipment with anvils, tongs, shears, drill, etc. This will be at the service of the students enrolled in the short course.

The Putnam School, at Madison, gives a two-year short course, each 14 weeks long. The course comprises agriculture, woodwork, cooking, sewing, English, arithmetic, bookkeeping, civil government, and commercial law. The outline in agriculture follows:

FIRST-YEAR COURSE.

Soils.—Work on soils of this county, elements in the soil, uses of green manures, barnyard manures, effect on soil of grain farming and stock framing.

Crops.—Testing grain for weed seeds, germination, corn and grain judging, selection of seed.

Forage crops.—Alfalfa, clover, vetch, rape, cowpeas. How to eradicate weeds.

Horticulture.—Apples and plums—planting, grafting, propagation, protection from insects and diseases, pruning methods; strawberry and bush fruits—same outline as for apples and plums.

Entomology.—Sprays and spraying for the important local insects. Testing of Paris green and the other sprays for impurities.

Animal husbandry.—Horses, draft and roadsters—care, feeding, judging. Dairy cattle—care, feeding, judging, proper rations, dairy herd records, milk testing, testing for tuberculosis, treatment of milk fever, feeding of silage.

Farm mechanics.—Construction of portable hog houses and other simple buildings. Road building and the maintenance of a good road.

SECOND-YEAR COURSE.

Animal husbandry.—Horses—care of foal mare, care of foal, veterinary work, unsoundness of horses, sweeneyed shoulders, splints, corns, thoroughpin, age of horses. Hogs—feeding, ration for young pigs and fat hogs, preparing hogs for show purposes.

Sheep—proper houses, trimming, feeding, treatment for bloat. **Poultry**—good breeds, poultry houses, feeding. **Dairy and beef cattle**—more advanced work than in the first year.

Rope work.—Making of rope halters, splicing rope, tying knots.

Cereal and forage crops.—Proper rotations for the soil of this county. Soiling and silage crops. Advanced grain judging. Identification of weed seeds.

Farm mechanics.—Buildings, drainage of marsh lands, fence building, making of concrete fence posts, gas engines.

The Associated School at Spring Valley has annually, in addition to the regular short course, a junior course for the farmers and their wives. It is six days in length. Special work is arranged for (1) the farmers, (2) their wives, and (3) the rural teachers of the associated schools. Says the short course announcement:

There is no age limit; all we want is to gather together the farmers and their wives. No one will be refused instruction; but the course is especially adapted to the farmers conditions.

A man can take any two subjects, such as animal husbandry and farm crops, or he can substitute one of these with cooking or sewing. This is likewise true for the women.

In case of the teachers of the rural schools, it will be necessary that they take a different course, which will be farm crops, cooking and sewing, and in some cases animal husbandry.

No one can take one subject one day and change the next, as this will make confusion.

The daily program of work for farmers' wives illustrates well the definite character of this school for grown-ups:

Monday.

10 a. m. Talk on food—its use in the body—digestion—effect of cooking—preparation.

1.30 p. m. Demonstration. Eggs and milk—(a) custards—(b) omelet.

3.30 p. m. Sewing methods—fastenings—sewing on buttons—buttonholes—hooks and eyes—loops.

Tuesday.

9 a. m. Economy in the home—labor-saving devices.

10.30 to 12 a. m. Demonstration. Cooking starchy foods—(a) cereals—(b) use of fireless cooker—(c) making white sauce.

1 to 2.30 p. m. Demonstration. Setting the table.

2.30 to 4 p. m. Talk on home decoration.

Wednesday.

9 to 10.30 a. m. Talk on meat—principle of cooking.

10.30 to 12 a. m. Demonstration. Cooking the cheaper cuts.

1 to 2.30 p. m. Talk on care and feeding of little children.

Thursday.

9 to 10.30 a. m. Talk on home nursing.

10.30 to 12 a. m. Demonstration. Invalid cookery.

1 to 2.30 p. m. Vegetable cookery—demonstration—preparation of two or more vegetables.

2.30 to 4 p. m. Repairing—(a) stockingette darn—(b) cloth darn—(c) patching.

Friday.

9 to 10.30 a. m. Talk on yeasts and baking powders.

10.30 to 12 m. Demonstration. (a) Use of bread mixture—(b) white bread.

1 to 2.30 p. m. Garment seams—demonstration of corset cover.

2.30 to 4 p. m. Laundry work—removal of stains—washing linen, woolen, silks, etc.

Saturday.

9 to 10 a. m. Talk on preservation of foods.

PLANS OF THE STATE SUPERVISOR OF TEACHER TRAINING IN HIGH SCHOOLS.

The objection made in the body of the bulletin, that the Minnesota teacher-training departments have not laid enough emphasis on rural leadership subjects, is now in a fair way to be removed through the effective work initiated by the newly appointed training supervisor, Miss Mabel Carney. She offers the following plans as a basis for future work of the training departments:

I. GENERAL PLANS FOR DEVELOPMENT OF TRAINING WORK.

1. *Instructors:* Their increased preparation and efficiency.
 - a. Securing the cooperation of the State normal schools and of the college of education in establishing special rural school departments for the preparation of training teachers.
 - b. Summer-school courses at the college of agriculture.
 - c. Summer-school courses at Teachers College (Columbia University), Cornell University College of Agriculture, University of Wisconsin, and elsewhere.
 - d. Rural spirit and knowledge especially desirable for training teachers; secured while teaching, through the study of rural literature and attendance at rural meetings; also from taking special rural courses in university summer schools.
2. *Students:* A more careful selection desirable.
 - a. Only students of ability permitted to enter departments.
 - b. Supervisor and training teachers to investigate previous records of all students in departments.
3. *The course of study:*
 - a. An adjustment of the subnormal high-school course, placing some academic courses in the junior year, is recommended.
 - b. Emphasis upon definite professional courses in pedagogy, country-school management, and rural life.
 - c. Rural adaptations in subject-matter courses. (To be worked out cooperatively and published in bulletin form later.)
4. *Practice teaching:*
 - a. Brief course in observation preceding practice recommended as a protection to both children and cadets.
 - b. The management and use of country schools for observation and practice.
 - c. The abolition of the ungraded room when composed of defective children.
5. *Increased rural spirit in training departments:*
 - a. Country-life clubs or farmers' clubs in high schools, associated districts, and communities of rural training schools.
 - b. Contests among students for rural poems, country teachers' creeds, farm-life stories, essays and orations on rural subjects, etc.
 - c. Extension work.
 - (a) Talks by the training teacher in rural districts.
 - (b) The training department as a county educational center.
Equipment for this purpose: Exhibits; photographs; stereopticons; slides at State office.
Saturday office hours.
Organization of alumni of the department.
6. *Relationships of training departments:*
 - a. To State normal schools—rural-school departments needed.
 - b. To the university—a rural department in the college of education.
 - c. To the county superintendents—an advisory board of three.
 - d. To city superintendents and local high-school boards—greater interest in the department and more local expenditure for its support.
7. *Quarters and equipment:*
 - a. Usual teaching materials and equipment.
 - b. Special rural features in equipment: Sand table; shelf of country-life books and bulletins; reading table of rural periodicals; rural school and country-life exhibits; rural-life pictures; blackboard quotations and decorations, etc.

8. *Assistance from the supervisor's office.*

- a. Office to serve as a bureau of information and clearing house for training teachers, superintendents, and others.
Records kept of supervisor's visits; of students, teachers, money expended, vacancies, candidates for vacancies, etc.
General source of information on development of training work in Minnesota and other States; and on country school and rural life questions.
- b. Correspondence.
- c. Circular letters—reporting visits and announcing recent articles, books, forthcoming plans, etc.
- d. Bulletins—containing outlines for courses, special contributions by various teachers, etc.
- e. Collection of books and bulletins recommended for use in departments.
Possibly a loan library established.
- f. Photographs for exhibits at conferences and to illustrate bulletins.
- g. Slides to loan departments for class teaching and extension work.

9. *Some general principles to be emphasized.*

- a. Honesty to the State in giving value received for all money expended.
Danger of exploiting the training system for local ends.
- b. Rules of the high-school board consistently enforced.
- c. Initiative and freedom of training instructors to be preserved. Teaching constructive and contributory to the solution of the general State problem.

II. CONSTRUCTIVE PROBLEMS FOR THE ATTACK OF TRAINING TEACHERS.

Problems from the course of study.

1. Courses with reference and bibliographies in professional and rural work: (a) Elementary pedagogy or teaching process; (b) country school management; (c) rural sociology or course in country life.
2. Courses in regular subjects showing content, rural adaptations, and instruction in method of presentation: (a) Arithmetic; (b) geography; (c) history and civics; (d) composition and grammar; (e) reading (especially beginning reading); (f) physiology and rural sanitation; (g) music; (h) drawing; (i) story telling.
3. Courses in industrial subjects, showing content, rural adaptations and instruction in method of presentation; giving also lists of materials and equipment recommended: (a) Agriculture; (b) cooking; (c) sewing; (d) manual training; (e) primary handwork.
4. Practice teaching: (a) Outline of a course in observation for training departments; (b) the establishment and management of a rural training or observation school; (c) managing practice to the best advantage in the ungraded room or in city grades.
5. Card catalogue of annotated references in magazines and periodicals for department use.
6. Lists of songs, pictures, poems, and stories for rural schools, emphasizing beauty and satisfaction of country life.
7. List of fiction (novels and short stories) dealing with child life and pedagogical subjects.
8. List of rural life stories and novels.
9. List of educational helps and sources for country teachers.
10. Outline of elementary course in the study of country life for older pupils of rural schools.

Problems arising in the administration and management of training departments and country schools.

11. A suggestive program of studies for the normal year, showing arrangement of the subnormal high-school course.
12. A recommended program for country schools.
13. Opening exercises for country schools; study of their influence; suggestions for; and collection of material to use.
14. A campaign for the consolidation of schools; method of procedure, literature, statistics, aids, etc.

Problems arising from the social and community phases of country schools.

15. Country Life Clubs—their organization and management; model constitution; sample programs; topics recommended; suggestions for the social hour, etc. Worked out in the local high school, in associated rural districts, or in the community of the observation and practice school.
16. Boys' and Girls' Clubs—encourage normal students to work with country children in conducting industrial contests (as developed by the agricultural college), corn and canning clubs, camp fire girls' groups; Y. W. C. A. organizations, etc.
17. Programs for school entertainments and special days.

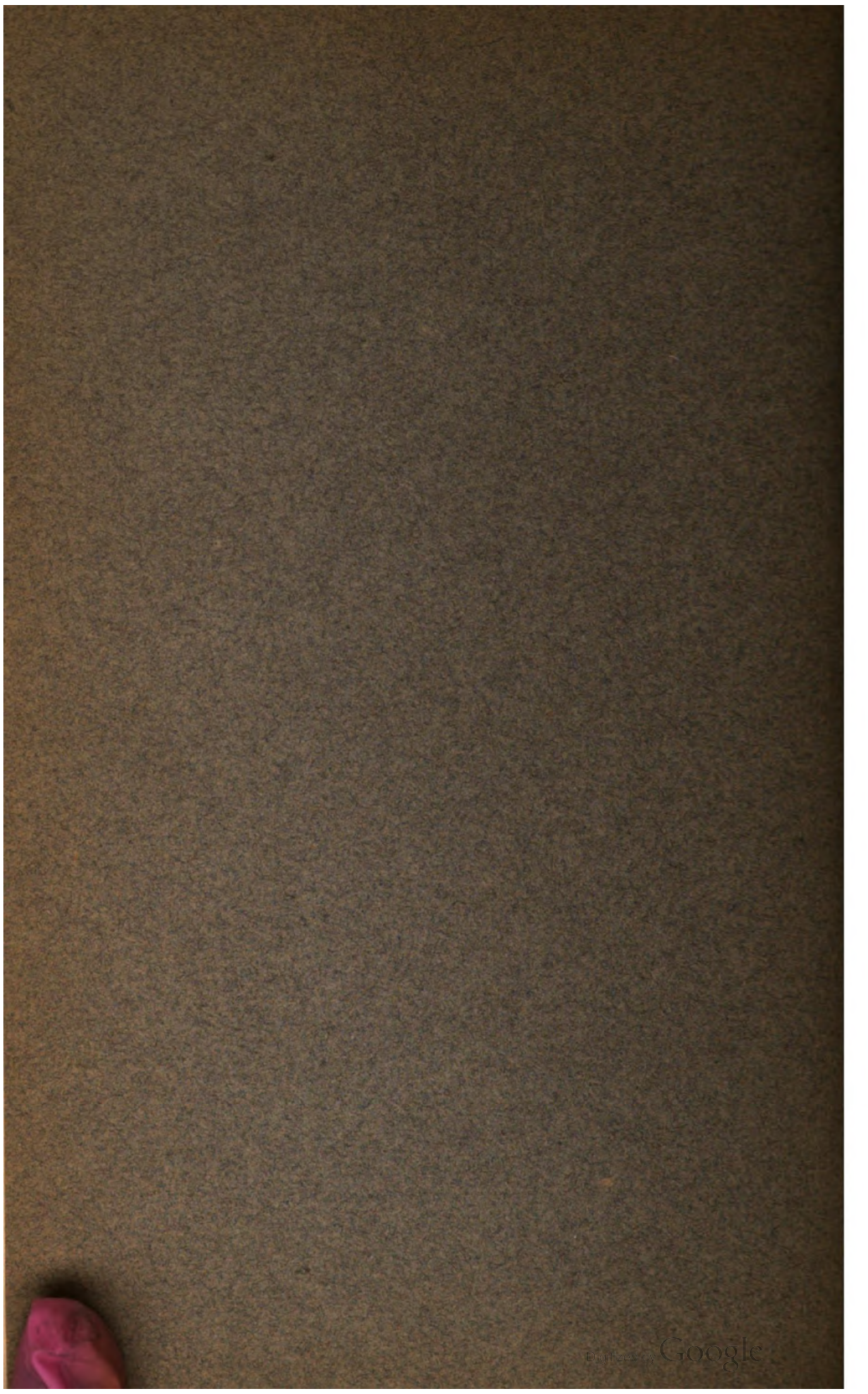
Problems relating to the country school plant and equipment.

18. A list of furnishings and equipment for country schools, with purchasing firms and prices, and a collection of catalogues.
19. Hot-lunch equipment and recipes.
20. Plans of a model rural school building.
21. Plans for model school grounds.
22. Model school building made by normal students in manual training.
23. Sand table exhibit to display at local farmers' institutes or fair, showing miniature models of a country school building, and of school grounds, properly landscaped and equipped with model playground apparatus.

Miscellaneous.

24. A directory of rural progress for Minnesota.
25. Sand table exhibit of a model rural community center, showing a consolidated school, country church, cooperative industrial plant, grange hall, etc.
26. Sand table exhibit of a model farm, showing crop rotation, location, and plans of buildings, etc., for use in agriculture, arithmetic, and beginning reading.
27. Special studies of rural conditions in Minnesota, as maps and diagrams showing tenancy, depletion of rural population, land values, etc.





SCHOOLHOUSE SANITATION.

A STUDY OF THE LAWS AND REGULATIONS
GOVERNING THE HYGIENE AND SANI-
TATION OF SCHOOLHOUSES

By WILLIAM A. COOK

HIGH-SCHOOL VISITOR, UNIVERSITY OF COLORADO



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CONTENTS.

	Page.
Letter of transmittal	4
I. Introduction	5
II. General control exercised by the State	8
III. The school site	18
IV. The water supply	27
V. Toilets	28
VI. Protection against fire and panic	33
VII. Lighting	47
VIII. Heating	50
IX. Ventilation	52
X. Cleaning and disinfecting	57
XI. Furniture and equipment	60
XII. Miscellaneous	63
Bibliography	66

LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, June 1, 1915.

SIR: With the increase of population, the lengthening of the school life of children, and the consolidation of small into large schools, often with many hundreds of children in one building, the care of the health of children while in school becomes correspondingly more important. Since the health of school children depends to a large extent on the location, heating, lighting, ventilation, and other sanitary arrangements of schoolhouses, the laws of States and the regulations of boards of education relating thereto are of great interest and importance to all. I therefore recommend that the accompanying manuscript on schoolhouse sanitation, the result of a study by Mr. William A. Cook, of the University of Colorado, into laws and regulations governing the hygiene and sanitation of schoolhouses, be published as a bulletin of the Bureau of Education.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

THE SECRETARY OF THE INTERIOR.

SCHOOLHOUSE SANITATION.

A STUDY OF THE LAWS AND REGULATIONS GOVERNING THE HYGIENE AND SANITATION OF SCHOOLHOUSES.

I. INTRODUCTION.

This bulletin reviews the standards that are set to-day in the different States concerning the physical environment to which the child is intrusted by compulsory attendance upon public schools. The school endeavors to instruct the child how to avoid ills of various sorts; the State, through inspection, is barring from the school those persons who may be a source of danger to others—these are facts that need not at present concern us, though they afford scope for a volume. This bulletin is confined to the hygienic provisions regarding the school site and the school plant.

There are difficulties in the way of a satisfactory treatment of this subject; some of them should be noted at the outset. The school codes of many States omit some of the laws bearing on school sanitation. These omissions can only be discovered by a careful scrutiny of the statutes. At the same time it is impossible to tell what shall be to-morrow. Various executive authorities, clothed with different degrees of power relative to control of school environment, are competent to act at any moment. State departments of education, State and local boards of health, fire marshals, factory inspectors, district police, etc., are some of the agencies charged with authority to make and enforce regulations carrying all the weight of statutory law. The courts, on the other hand, are competent to review these laws and rulings, and have already in several of the States handed down important decisions bearing upon school hygiene.

Increased facilities for communication and the similarity in ideals of the people of the different States have occasioned gigantic strides in the last few years in the legal and administrative control of school hygiene. Probably nine-tenths of the existing regulation of this sort has come within the last decade. The movement continues largely by a process of imitation and adaptation. Each State profits by the experience of 47 others. A law passed in one extreme of the country to-day is copied next month or next year by a State two or three thousand miles distant.

As a consequence of the way laws accumulate and administrative authority is exercised, there will be noted some contradictions and

many duplications in law, much of vagueness in administrative regulations, and some conflict in administrative authority. The last is by far the most serious difficulty. It is due for the most part either to reluctance on the part of legislatures to delegate power and provide penalties, or to the fact that the administrative officer is dependent for his reelection upon a more or less temporary popularity.

Illustrations will make this plainer. The superintendent of public instruction¹ in one State writes: "While the law requires that the plans (of all school buildings) be approved, the methods of enforcing such approval are rather meager." Reference to the State law reveals that there is no penalty whatever for violations. The State superintendent of Utah complains that the law establishing a State schoolhouse commission for the approval of building plans in that State is not effective because no appropriation has been made to meet the expenses of the inspection necessary to satisfy the commission that the plans and specifications are executed as approved.² By authorization of law the department of public instruction in a certain State has established requirements for ventilating rural schools that expect a bonus from the State. Additional recommendation and discussion of ways and means are embodied in a circular issued to school officials. With a view to discovering how much was recommendation and how much requirement, a blank entitled "County Superintendent's Inspection Report" was secured, and upon it were noted such replies to the various queries as a leading official of the State Department felt would constitute the minimum for the granting of the bonus. The circular of the State Department says that "the chimney built for the outlet must be at least 16 by 16 or 12 by 24 inside measurement"; yet a favorable report is made on applications giving 12 by 12 as the inside measurement. The fresh-air intake "should be at least 14 inches in diameter," but in practice 12 inches is accepted, with a foul-air outlet of equal size, though the State circular reads: "The foul-air outlet must be larger than the fresh-air intake." Complaint was made unofficially by a member of this department that county superintendents are too dependent upon local good will to be ideal inspectors. They are disposed, in some instances, to get as much money as possible for their schools regardless of conditions.

It is neither possible nor desirable in the following pages to introduce the multiform difficulties and uncertainties that the subject offers. It will be necessary to be liberal in recognizing recommendations as requirements. The State requirements are presented in the language of the original as nearly as terseness and exactness permit; requirements set up by smaller administrative units have

¹ For convenience the term "State superintendent" will hereafter be used in referring to the chief educational officer of any State not having a commissioner.

² Ninth Rep. Supt. Pub. Instr., Utah (advance sheets), pp. 13-14.

been disregarded and attention focused mainly on the provisions of the different States.

Facts germane to this subject might be presented in a variety of arrangements. All data might be arranged geographically, showing first what are the regulations regarding school hygiene in Alabama, then in Arizona, then in Arkansas, etc. Such a procedure would be of some interest and merit from its possibility of holding up to scorn certain States and adding new laurels to the already widely heralded prestige of others. The data, on the other hand, might be arranged to show whether, in the establishment of standards, reliance is placed upon law or upon administrative agents. However, the fundamental interest of the educational public is in the standards of school hygiene, not where they obtain or by whom promulgated. For this reason the entire subject has been divided into a number of general topics, and under these the States are considered in alphabetical order.

An arbitrary scheme of notation has been employed in the table covering these topics. While such a presentation involves some disadvantages, in no other way can so much of detail and yet so correct a general impression be caught at a single glance.

1. Regulating authority:

Statutory (legislative enactments)=L.

Judicial (decisions in common or statute law)=J.

Administrative (rules of State departments of education, health, etc.)=X.

2. Enforcing authority:

Educational—

State=A.

County=B.

Town=C.

District=D.

Health—

State=A'.

County=B'.

Local=C'.

Fire or factory inspectors, etc.—

State=A''.

Local=C''.

3. Character of regulation:

Mandatory=m.

Permissive=p.

Encouraged by financial aid=e.

4. Extent of application:

State wide=a.

Outside certain classes of cities=b.

Consolidated district only=c.

Rural districts only=d.

After each table appears a brief discussion of the facts of the table, including certain supplementary material that does not lend itself to the tabular form. Before reaching a conclusion as to any given regulation, the reader should consult the discussion as well as the table.

many duplications in law, much of vagueness in administrative regulations, and some conflict in administrative authority. The last is by far the most serious difficulty. It is due for the most part either to reluctance on the part of legislatures to delegate authority to provide penalties, or to the fact that the administrative officer is dependent for his reelection upon a more or less temporary body.

Illustrations will make this plainer. The superintendent of public instruction in one State writes: "While the law requires that the plans (of all school buildings) be approved, the enforcing such approval are rather meager." Reference to the law reveals that there is no penalty whatever for violation. The State superintendent of Utah complains that the law requiring a State schoolhouse commission for the approval of plans in that State is not effective because no appropriation is made to meet the expenses of the inspection necessary to make the commission that the plans and specifications are executed. By authorization of law the department of public instruction in certain States has established requirements for certain schools that expect a bonus from the State. Additional information and discussion of ways and means are embodied in circulars issued to school officials. With a view to discovering the cause of recommendation and how much requirement is necessary, "County Superintendent's Inspection Reports" are submitted upon it were noted such replies to the various questions. An official of the State Department felt would constitute a basis for the granting of the bonus. The circular of the department says that "the chimney built for the outlet must be 12 by 24 inside measurement"; yet a favor on applications giving 12 by 12 as the inside measurement of fresh-air intake "should be at least 14 inches in diameter. In practice 12 inches is accepted, with a foul-air intake, although the State circular reads: "The foul-air intake must be less than the fresh-air intake." Complaint was made by a member of this department that county superintendents dependent upon local good will to be ideal in their disposal, in some instances, to get as much out of their schools regardless of conditions.

It is neither possible nor desirable in the following to reduce the multifarious difficulties and uncertainties of the problem. It will be necessary to be liberal in recommendations as requirements are required. The language of the law is as to permit; requirements are to be made by the local administrator.

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II. GENERAL CONTROL EXERCISED BY THE STATE.

By lodging with the several administrative officials powers of advice, approval of plans and equipment for school buildings, inspection and even condemnation of plants in operation, the State has made large extensions of its control over school environment. Advice is hardly a form of control; nevertheless, it constitutes the entering wedge of something more effective. Moreover, the function of advice is greatly strengthened when it is made legal, because the same act of the legislature that authorizes advice often sets aside a sum for the performance of the work. Table 1 summarizes the general situation regarding powers of advice, approval, inspection, and condemnation or correction.

Forty of the States have taken some legal action to limit the local officials regarding hygienic precautions in erecting school buildings. The States that appear not to have taken legal steps in this direction are Arizona, Colorado, Georgia, Illinois, Missouri, Nebraska, New Mexico, and Tennessee. It does not follow that the State departments of education in these eight States are indifferent or even inactive with regard to the condition of schoolhouses. Through annual reports, circulars, and pamphlets, and the granting of certificates or commissions to "model schools," etc., all possible moral suasion is put into play.

TABLE 1.—General control exercised by the State without definite standards.

[For explanation of symbols, see p. 7.]

States and references. ¹	Advice.	Approval.	Inspection.	Inspection combined with condemnation (or correction).
Alabama: School Laws, p. 114.....		LAed.....		
Arkansas: Acts of 1911, No. 472.....				LA'pa.
California: School Law, subdivision 11, sec. 1543; also sec. 1544.		LBmb.....		LBpb.
Connecticut: Rev. Stat. of 1888, sec. 2185. Laws Relating to Schools, sec. 240.		LCma.....		
Delaware: Laws of Delaware, ch. 327, vol. 22; School Laws, p. 10.			LA'pa.....	LBpe.
Florida: Gen. Stat., sec. 1120; Acts of 1909, ch. 5931.				LA'pa.
Idaho: Rule State Bd. of Ed., Handbook of Inf. for Trustees, p. 46; School Laws, p. 6; Laws of 1909, House Bill, No. 171; Rules State Bd. of Health.		Xama.....	LAPA; LB'ma.....	XA'B'C'pa.
Indiana: Burns' Annotated Statutes, Revision of 1908, sec. 7594; Reps. State Bd. of Health, various years; Blue v. Beach, 155 Ind. 121.			LA'pa Jpa.....	XA'pa.
Iowa: School Laws, p. 65; Fifteenth Bien. Rep. State Bd. of Health, p. 39; Code of Iowa, sec. 2568.		LBma.....	XC'ma.....	LC'pa.

¹ Where it has been necessary to give more than one reference under a State, the citations are arranged very nearly as they give the data of the columns following from left to right.

Interpret according to the scheme laid out on pp. 5-6 preceding, by reading, for example: In Alabama, the State education department must approve plans for rural districts before State aid can be extended; or again, in Louisiana, plans for all new schoolhouses must, according to a rule of the State board of health, be approved by the State education authority and the parish (county) education and health officials. The law also gives power to the State health authorities of Louisiana to inspect all schoolhouses.

TABLE 1.—General control exercised by the State without definite standards.—Continued.

States and references.	Advice.	Approval.	Inspection.	Inspection combined with condemnation (or correction).
Kansas: Laws Relating to Schools, p. 90.	.....	L (State architect) ma.	.....	.....
Kentucky: Rule State Bd. of Health, Rep. State Bd. of Health, 1908-9, p. 194; School Laws, pp. 19, 25.	.....	.....	.....	XC'ma; LBma.
Louisiana: Rule State Bd. of Health; School Laws, p. 124; Rev. Stat., sec. 3063.	.....	XA'ABB'ma.	LA'pa.	.....
Maine: Laws of 1909, ch. 88.	LAp.	LAA'ma.	.....	.....
Maryland: School Laws, pp. 21, 40.	.....	LBmb.	.....	.....
Massachusetts: Acts of 1913, ch. 655; Laws Relating to Pub. Instr., pp. 114-118.	.....	LA'ma.	L (medical inspectors) ma; LA'pa.	LA'pa.
Michigan: School Laws, p. 177; Rule State Bd. of Health, 1'ublic Health, Jan.-Mar., 1910, p. 47; Laws of 1911, No. 255.	.....	.....	.....	LA'pa; XA'ma (county truant officer) pa.
Minnesota: State Health Laws and Reg., May 1, 1912; Bul. No. 40, Dept. Pub. Instr.; Rev. Laws of 1905, sec. 2131; Gen. Stat. 1913, sec. 2874, 2661, 4640 (6); Rules, Dept. of Ed., 1915, Bul. 56.	.....	LXAmsec; XA.	.....	LAp.
Mississippi: Code of 1906, sec. 2513-2514; School Laws, 1914.	.....	.....	LA'ma.	.....
Montana: Laws of 1913; Rev. Code, 1907, sec. 1483; Rule State Bd. of Health.	LA'md.	LAA'ma.	.....	LXC'ma.
Nevada: School Code, p. 28.	.....	LAm.	.....	.....
New Hampshire: Pub. Stat. in force Jan. 1, 1901, p. 338.	.....	.....	.....	LC'pa.
New Jersey: School Laws, pp. 72-73, 195.	LAm.	LAm.	X (medical inspectors) ma.	LBpb.
New York: Education Law, secs. 451-453, pp. 102-103.	.....	LAm.	.....	LBma.
North Carolina: School Laws, pp. 56, 102.	.....	LABma.	.....	.....
North Dakota: School Laws, pp. 30, 103, 104, 105; Laws of 1913, ch. 6 and 263, House Bill, No. 378.	LABB'ma.	LAeb; LAm.	.....	LABB'ma.
Ohio: State Bldg. Code of 1911; Code of 1910, sec. 4424; Laws of 1910, pp. 395-397.	.....	LA'B'C'A''C'ma	.....	L (State inspectors of plumbing) C'pa. LA'ma.
Oklahoma: Rev. Laws, sec. 6738.	.....	.....	.....	.....
Oregon: General Laws, sec. 3999.	.....	LBmb.	.....	.....
Pennsylvania: School Code, pp. 42, 52-53; Act of Apr. 27, 1905.	LAm.	LAm.	.....	LA'pa; LAea.
Rhode Island: Laws of 1911, ch. 725.	.....	LAm.	.....	.....
South Carolina: School Law, pp. 26-27, 40-41, 63; Acts of 1912, No. 419.	.....	LABea.	.....	LA'pa.
South Dakota: School Law, secs. 32, 237.	.....	LAm.	.....	LBpa.
Texas: Law effective July 1, 1913; Rev. Civil Stat., arts. 2756, 4529.	LAm.	LBdma.	LA'pa.	.....
Utah: School Law, pp. 29-30; Compiled Laws, 1907, sec. 174, 1104x-1104x3, 1115x18-1115x20.	.....	LAA'mb.	.....	LA'C'pa.
Vermont: Pub. Stat., sec. 1513, 1516-1518.	LA'm.	LA'ma.	LA'ma.	LA'pa.
Virginia: School Laws, pp. 42-43, 44.	.....	LBma.	.....	LBpe; LA'pa.
Washington: School Laws, pp. 33, 51, 61, 69; Codes and Statutes, sec. 4532.	.....	LBmb.	.....	.....
West Virginia: School Law, pp. 14, 43, 63; Code, secs. 2050, 2051.	L (medical inspector) pa.	LBma.	LBma.	.....
Wisconsin: Laws relating to schools, pp. 89-91, 142, 229-230, 230-231; Laws of 1901, ch. 225; Laws of 1913, ch. 30.	LAm.	LBma; LAe.	LC'ma.	LABea.
Wyoming: Compiled Stat., 1910, sec. 2941.	.....	.....	.....	Lma.

A. ADVICE.

All of the States that have empowered officials outside of the district to give advice have backed up this advisory authority with stronger prerogatives. In one State the advisory work is shared by the county superintendent; in one by the local medical inspector; in one by the county superintendent of health; in two by the State board of health; in six by the State education department, i. e., by the State superintendent or commissioner of education or by the State board of education. In Montana advice is given to rural districts only. In Vermont the State board of health advises with municipal officers regarding the construction, heating, ventilation, and sanitary arrangements of public buildings, construed as including public school buildings. In certain other States advice is given to districts of all classes. The advice, except in Vermont, West Virginia, and possibly Texas, consists in the preparation of plans for buildings and the loan of the plans to districts desiring them. In Maine, New Jersey, Pennsylvania, and Wisconsin specifications are prepared and lent. In three of the States that prepare plans the State superintendent may furnish the necessary details for large as well as small buildings, but in Maine and Wisconsin a four-room structure is the limit, while in North Dakota the superintendent has no authority to go beyond two rooms. The duty of giving advice is usually mandatory with the officials upon whom it is conferred, but in Maine the law is evidently permissive, since the State superintendent sets forth no standards and in a recent letter speaks only of approval. In West Virginia the local medical inspector, "when requested by the board of education," shall assist in formulating rules of procedure on matters pertaining to the lighting, heating, ventilating, and sanitation of the school buildings. It is evident that the purpose of advice is the protection of smaller and poorer districts against their own ignorance or the exploitation of persons from without.

B. APPROVAL.

Classes of officials utilized.—The power of approval of plans is a species of control more generally exercised and more potent in effects than the power of advice. Table 1 shows that the power of approval has been practically taken from the lay authorities in at least 30 States. The function of advice is exercised in all cases directly under *legal* warrant, but in 3 out of 30 States the power of approval finds its authority specifically in the administrative ruling of the State board of health or of the State board of education. Approval, like advice, comes most frequently from the hands of education officials. In 21 out of 30 cases these officials are the sole authority in approval; in 1 case the health authority acts alone; in 1 case the State archi-

tect; in still another a supervisor of plans in the building inspection department of the district police; in 5 cases health and education officials cooperate; and in 1 case, (Ohio), the health officials share their responsibility with several others.

Degree of centralization.—So far as the health authorities are concerned, it is nearly always the State boards of health that have jurisdiction, local boards working under their direction. With the education officers the tendency toward centralization is not so marked. Of the 21 States where the education officers act alone, in 9 the State department of education is in full charge; in 7 the county superintendent, county school commissioners, or county board of education approves. In the 5 others, State, county, town, and district officers are variously combined. In North Carolina the State superintendent has the power of initial approval, but before the building can be paid for it must be inspected and approved by the county superintendent. In South Carolina both the State and county boards of education must approve plans before aid can be received from the county schoolhouse fund. In Maine and Montana the State superintendent and the State board of health cooperate under certain conditions. In Maine both must approve plans if other than those prepared by the State department are used. In Montana there is cooperation except in districts of the first class, i. e., those containing the larger cities. In these districts the board of health may act alone. In Texas county superintendents approve plans in common school districts and in independent districts having fewer than 150 scholastics, while local superintendents approve in others. In Louisiana three officers—the State superintendent, the parish superintendent, and the parish health officer—must approve all plans as to hygienic requirements. In Minnesota all matters relating to schoolhouse sanitation were transferred in 1913 from the State board of health to the State department of education, and definite powers lodged in the State superintendent of education. West Virginia's new law (1915) creates a State department of health, with greatly enlarged powers including a public health council which will have direct oversight of State sanitation, etc.

The Ohio State building code.—While Ohio's State building code of 1911 is a most exhaustive piece of legislation, it is not retroactive in any of its features. It does not mention condemnation of existing buildings, and in this respect is below the standard of many other States. Further; it does not provide for legal approval or advice, but it does charge specific officials, State and local, with the enforcement of specific requirements of the code, e. g., the State fire marshal or municipal fire chiefs enforce all provisions relative to fire prevention; building inspectors or officials, State or local, have similar responsibility touching heat and ventilation, while health officials,

State or local, look after sanitary plumbing. It will be noted that there is possible division in responsibility on the one hand or friction in authority on the other. Both those who have control of school buildings and those engaging or assisting in the construction, alteration, or repair of such buildings are under heavy penalties.

Title 3, Part 2, of the Ohio Code deals with school buildings only, but so defines the term as to include libraries, museums, and art galleries; or, as the law states, "all buildings or structures containing one or more rooms used for the assembling of persons for the purpose of acquiring knowledge or for mental training." (Sec. 1.) School buildings are considered, however, under two classes or grades, grade A applying to "all rooms or buildings used for school purposes by pupils or students 18 years old or less." When Ohio requirements are subsequently referred to, grade A alone is meant.

It is unnecessary to reproduce all the detail of the code itself in defining its standard requirements.¹ Many of the precautions are less hygienic than practical in their bearing, and are designed to guard against future trouble and expense. They are, moreover, often too technical to be understood except by an architect or mechanic.

Territorial extent of power of approval.—The extent to which approval of plans may go territorially varies widely. In a majority of the States this approval applies to all districts, but several exceptions must be noted. In California incorporated cities with boards of education are autonomous in this particular; in Maryland the city of Baltimore governs this matter for itself; in New York the cities of the first and second classes are exempt from interference; in Pennsylvania cities of the first class. In Utah the exemption applies to cities over 5,000, but the State superintendent believes that the larger cities should be brought under the operation of the law.² In Oregon and Washington only districts of the third class, i. e., the most sparsely populated districts, need wait for approval.

The premium placed by State aid.—In Alabama, State aid toward building rural schools is conditioned on approval of plans by the State superintendent. In Minnesota all plans of school buildings must have the approval of the superintendent of education, and the statutes provide that consolidated schools may receive building aid up to one-fourth the cost of the building, but not exceeding \$2,000. The annual aid received by all classes of schools is also made contingent upon attaining certain definite standards with respect to buildings, mechanical equipment, furniture and apparatus. In South Carolina all schools are eligible to aid on a building project up to \$300 if the plans are approved. The scale of aid is \$50 for

¹ Given in Bu. of Ed. Bull., 1913, No. 52, "Sanitary Schoolhouses. Legal requirements in Indiana and Ohio." Washington, Government Printing Office, price 5 cents.

² Ninth Report of Supt. Pub. Instr., Utah (advance sheets), pp. 13-14.

each \$100 raised by the district itself. High schools and rural schools continue to enjoy State aid if conducted in a comfortable and sanitary building. In Wisconsin and North Dakota a second and higher scale of requirement is prescribed for schools that expect State aid. This bounty in North Dakota may run as high as \$600 annually for "a suitable building, properly lighted, heated, and ventilated." The State superintendent, by virtue of a previous similar law, issued a pamphlet¹ setting forth standards to be maintained in passing upon requests for aid, but the new authority is the State board of education. Exercise of the function of approval is mandatory in every case except the four or five where aid is used as a lever.

Approval of equipment.—Approval applies to school buildings in all the 30 States and to equipment in 3. In Maryland every schoolhouse must be built "and furnished" according to plans and drawings issued from the office of the county school commissioners. In Michigan, "(1) before any schoolhouse or addition can be erected by a district, plans and specifications of the same must be submitted for approval to the superintendent of public instruction; (2) the superintendent of public instruction shall have authority to inspect and condemn schoolhouses that are not in a safe and sanitary condition." In Washington the county superintendent's consent must be obtained before a third-class district can purchase any maps, charts, or apparatus.

Approval of repairs and alterations.—So far as the buildings themselves are concerned, new structures, and sometimes the alteration of old ones, come within the province of the law. In Montana an expense of over \$500 in enlargement or repairs calls for the same formalities as an entirely new building. In New York the same limit, \$500, is placed on all districts outside of cities of the first and second classes, unless the approval of the commissioner of education is secured. The New Jersey law prescribes that "no public school or part thereof shall be erected until approval is given." Texas has met the difficulty and largely solved it through the power of the county superintendent to approve all vouchers drawn against the school fund of the county.

Exceptions for certain types of buildings.—In several States exceptions to the law concerning approval of plans are made for certain sorts of buildings. In Alabama the law affects only rural schools; in Kansas only those over one story high; in Texas only buildings costing over \$400; in Utah only buildings costing over \$1,000; in Wisconsin only buildings of four rooms or less.

Weaknesses in the power of approval.—The column headed "Approval" in Table 1 should be taken with some reservation. Besides

¹ State Aid to Consolidated, Graded, and Rural Schools.

weaknesses previously noted in the enactments and executive machinery of some of the 30 States, there is a question as to whether Pennsylvania, Rhode Island, and Connecticut should be listed at all. The Pennsylvania statute provides that in certain districts no contract can be made for a building until "plans and specifications have been submitted to the State board of education, and any recommendations concerning the same by the State board of education have been laid before the board of school directors." The law appears to be advisory; but in justice it should be said that succeeding sections lay down some very definite standards. The Rhode Island statute directs that the State board of education shall approve standards of lighting, heating, ventilating, seating, and other sanitary arrangements in schools and communicate the same to school committees. This, too, seems to be merely advisory. The approving authority in Connecticut lies with the board of school visitors, a lay body. Very few of the States have established penalties for the violation of this sort of statute, though in nearly all it would probably be possible to reach offenders on some such general charge as malfeasance or misappropriation.

An indirect advantage.—Provisions for approval naturally lead to the extension of the function of advice. The authorities in whom power of approval is vested have in at least four cases discovered the economy of issuing model plans, specifications, or building codes for the guidance of architects and school boards. The Massachusetts inspector of buildings has prepared a sheet setting forth certain requirements in heating and ventilation of schools that must be complied with before plans can be approved; and the State board of education in New Jersey has adopted a fairly comprehensive building code. The State superintendent of North Carolina has issued pamphlets containing plans that will be accepted as satisfactory, and the State board of South Carolina has acted similarly.

C. INSPECTION.

Under the column headed "Inspection," in Table 1, have been grouped those arrangements for inspection of hygienic conditions where there is no delegated power to order correction. Since this duty in the 12 States represented has been placed almost entirely with health officials, another common function of health boards has been included under "inspection," viz, the right to frame sanitary codes. The power to frame and enforce sanitary codes has been placed in the last column of Table 1. The duty of inspection is mandatory in the case of Idaho, Iowa, Massachusetts, New Jersey, West Virginia, and Wisconsin, and is in the hands of county or other local officers. In Massachusetts State health officers also may inspect schools. The power to frame sanitary codes is optional and is lodged with the State health authorities in Delaware, Indiana, Louisiana, and Texas.

In Mississippi the State board of health *shall* prepare a general sanitary code; in Vermont it *shall* issue to local boards of health its rules regarding lighting, heating, and ventilation of school buildings and cause schoolhouses to be inspected in these particulars.

While these arrangements seem to be purely advisory in some States, in others public sentiment and the courts have given them considerable significance. In several States the State board of health has become *the* force in the hygienic improvement of schools. Such is notably the case in Delaware, Louisiana, Indiana, and Vermont. This has not been accomplished, however, without a struggle. The judicial trend is well summed up by the supreme court of Indiana in the case of *Blue v. Beach et al.* (155 Ind., 121). The following is the language of the court: "When these boards adopt rules and by-laws, by virtue of legislative authority, such rules and by-laws * * * have the force and effect of a law of the legislature."

Again:

The powers conferred upon them by the legislature, in view of the great public interests confided to them, have always received from the courts a liberal construction, and the right of the legislature to confer upon them the power to make reasonable rules, by-laws, and regulations is generally recognized by the authorities.

D. INSPECTION AND CONDEMNATION (OR CORRECTION).

Strong and weak types of laws.—As the power to approve stands above the power to advise concerning new buildings, so the right to condemn or correct stands above the right to inspect old buildings. A little over half the States of the country have taken some sort of action to compel remedial measures where they are needed. The laws looking to this end are of all degrees of completeness and stringency. An illustration of the weaker type is that of Wyoming. It says in effect that managers of all public places and institutions, schools specified among others, shall remedy the sanitary defects called to their attention. Presumably the health authorities are the ones to call attention to defects. There are no penalties; no enforcing authority.¹

At the other extreme, perhaps, stands Wisconsin, handling the situation through education officials. The law reads: "The inspector of rural schools, the inspector of State graded schools, and the inspector of high schools of the State * * * are hereby made inspectors of public school buildings," under the direction of the State superintendent. Any school official, member of board of health, or even voter of a school district may complain in writing to the State superintendent

¹ In Wyoming the State superintendent, "realizing the weakness of the laws regulating type of school building, has issued general circular letters to trustees and personal letters to all the school boards contemplating the erection of new buildings, offering help in drafting plans. The State department of education publishes illustrated bulletins for circulation, giving specific suggestions in regard to school buildings standard for rural and village schools of one or more rooms." (Letter from State board of health, May 15, 1915.)

of the insanitary condition of his local school or its actual imperilment of life or limb of attendants. Upon receipt of such complaint the State department shall assign one of the inspectors mentioned above to make a personal inspection. The inspector shall report to the officials in charge of said school, ordering the repairs that in his judgment are necessary, or stating that the building should be replaced by a new one. A copy of the report is also to be filed with the State superintendent, to whom an appeal may be made by the district officials concerned. Unless the order of the inspector is complied with in the specified time or is reversed by the State superintendent, the district in question shall forfeit its entire share of the general seven-tenths mill tax of the State for school purposes. Or the county superintendent may condemn any schoolhouse, the offending district to lose its share of the school fund income until conditions are made satisfactory. The State superintendent, however, may on appeal review and reverse the decision of the county superintendent. The county superintendent may also direct district boards to make any repairs or alterations which, in his opinion, are necessary to health, comfort, or progress of the pupils, provided that the cost of the same does not exceed \$25. The Wisconsin law has resulted in the condemnation of a number of buildings.

Combinations of authority.—There are few combinations of authority in the matter of inspection and condemnation. In Kentucky, Michigan, North Dakota, Pennsylvania, and Virginia both health and education authorities have power, but they act independently, except in North Dakota, where a complicated system is in operation. A law of 1913 in that State reads that the county superintendent of health shall enforce cleanliness in the schools and inspect overcrowded, poorly ventilated, and insanitary schoolhouses. Another law of the same year directs that when the county superintendent reports to the county board of health that any schoolhouse or outbuilding is unsafe or insanitary, the county board of health shall at once investigate and direct the school board to take such action as may be necessary. Another law empowers the State superintendent by his deputy to require any improvement in the sanitary or ventilating arrangements of the school building unless it entails unreasonable expense. Aggrieved parties may, however, appeal within 30 days to the local health officers, whose decision shall be final. In 5 States education officers alone have power to act, and in 13 health officials are supreme.

Degree of centralization.—Of the 5 States where education officers are in control of school health conditions, only 1, Wisconsin, gives the State education officers any voice; in the others control is vested in the county superintendent or a similar officer. Among health authorities the State boards exercise the primary influence, and local representatives work under their direction.

Sanitary codes.—Plenary power conferred upon State boards of health to make and enforce sanitary codes is no longer an uncommon thing. Thus the Minnesota State Board of Health may adopt and enforce regulations, which when approved by the attorney general and published have the force of law. Among the general subjects on which it may rule are “the construction and equipment in respect to sanitary conditions of schools * * * and other public institutions.” Under this authorization numerous rules have been adopted regarding schools, and the State has found it necessary to enact but little specific legislation. In New York State district superintendents may condemn schoolhouses which in their opinion are “wholly unfit for use and not worth repairing.” When an order is made, the district is required to vote an appropriation for a new building costing not less by 25 per cent than the amount specified in the order of the district superintendent. Such order is subject to review by the commissioner of education. The district superintendent may also order repairs and alterations to an amount not exceeding \$200 in any one year.

Results in Indiana.—From the side of tangible results the Indiana State Board of Health has made an enviable record, and has merited the vote of confidence that was expressed in making it the executive authority of the sanitary schoolhouse law of 1911. Gathering encouragement from the pronouncement of the State supreme court in *Blue v. Beach* in 1900,¹ the board began a series of inspections which resulted in cases for condemnation coming before most of the quarterly meetings. A study of annual reports gives the following data, the extensions representing additional allowance of time to districts where buildings had been condemned:

Results of work of Indiana State Board of Health.

Years.	Condemna- tions.	Extensions.
1903	5	0
1904	7	1
1905	4	1
1906	16	0
1907	31	3
1908	32	3
1909	33	8
1910	38	3

Frequency of inspection.—The frequency of the inspections is usually left to the discretion of the inspectors. In Montana, however, a rule of the State board of health commands the local health officer to inspect every school in his district once “each school term” and to close it until any insanitary condition is abated. The county superintendent of health in North Carolina during the summer

¹ See p. 15.

months must make an examination of the sanitary conditions of every public school, and he may prohibit the resumption of work by withholding his certificate of approval.

Limitations of power to order corrections.—Power to order repairs is limited in several of the States. The Massachusetts inspector of buildings and the State superintendent of North Dakota are forbidden to make an order entailing unreasonable expense. In New York the district superintendent, an official corresponding closely to the county superintendent in other sections, may condemn entire buildings, but he can not direct repairs that will cost a school over \$200 per year. His jurisdiction covers only districts of less than 5,000 inhabitants. In Vermont the State board of health is limit by the law of 1915 to 20 per cent of the grand list (1 per cent of valuation). The county superintendent in South Dakota is held to an expenditure of \$50 per year, and the county superintendent in Wisconsin, as previously noted, may not expend more than \$25. In Michigan the authority of the county truant officer reaches only the inspection and correction of defects in out-buildings, and a rule of the State board of health applies merely to the school surroundings; but the factory inspectors may condemn all school buildings that they consider liable to collapse or that endanger life. The latter statute is, of course, insufficient so far as ordinary sanitation is concerned.

Penalties.—Penalties vary widely in their severity and nature. In Delaware, Pennsylvania, Virginia, and Wisconsin the district is made to suffer by losing its share in the apportionment of State or county school funds. In North Dakota a fine of \$100 to \$1,000 may be imposed, and two other States place a lower figure. In Ohio the penalty is definitely personal; the official may be fined or imprisoned, or both.

Comprehensiveness of the Kentucky statute.—The Kentucky law is noteworthy in that it provides that the county superintendent—shall condemn any schoolhouse which is dilapidated, unhealthy, or otherwise unfit to be occupied for the purpose of a common school, and any fence or other inclosure of a schoolhouse, when such inclosure is for any reason insufficient for the protection of the house or ground. He shall condemn all school furniture or apparatus, insufficient in quantity, or not of the required character, order the same replaced with the proper furniture or apparatus—

and notify the trustees of his decision. These large powers are backed by authority to suspend or remove any trustee for neglect of duty.

III. THE SCHOOL SITE.

Factors affecting the school site and its surroundings are set forth in Table 2. Provision for playgrounds is included also, together with facts that affect the accessibility of the school to its pupils. Accessi-

bility is governed mainly by provision for transportation and by size of district. The former has been included only often enough to show the trend in opinion as to how far a child ought to walk; the latter has not been regarded, since many of the boards have the right to establish as many schools in the district as they deem proper.

In general it may be said that all directions in this section are mandatory, except that a few States allow option with regard to transportation. Furthermore, some latitude is allowed district boards between the maximum and minimum requirements as to size of school site. Nearly all the provisions are State wide in their application, and there is a tendency to make the provisions of the act apply also to private and parochial schools. The term "private" or "parochial" is found in the statutes of Florida, Massachusetts, Rhode Island, South Dakota, Tennessee, Vermont, and Wisconsin. The Massachusetts law defines a schoolhouse as "any building or part thereof in which public or private instruction is afforded to more than 10 pupils at one time." Other States use the word "school" in a general way and do not specify its character. The names of 36 States appear in the table, 8 in the regulation of miscellaneous matters with reference to school site, 18 with reference to the proximity of various nuisances, 18 with reference to availability of site through transportation or other devices, and at least 25 with reference to size of school site.

TABLE 2.—*The school site.*¹

States.	References.	Proximity of nuisances.	Availability of site.	Size of site.	Miscellaneous.
Alabama.....	School Laws, p. 114.			×	
Arkansas.....	Digest of Stat. (1905), sec. 5129; acts of 1905; acts of 1913.	×			×
Colorado.....	School Laws, p. 193.		×		
Connecticut.....	Laws of 1907, ch. 200 (81 Conn., 276); acts of 1911, ch. 173; Gen. Stat., sec. 4070, 4114; acts of 1913.	×	×	×	×
Delaware.....	Sixteenth Bien. Rep. State Bd. of Health (1908-1910), p. 72; School Laws, p. 26.	×		×	
Florida.....	School Laws, pp. 17, 49, 118.	×	×	×	
Indiana.....	School Law, pp. 134, 150, 188, 201. U. S. Bu. of Ed. Bull., 1913, No. 52, p. 10; acts of 1913.	×	×	×	×
Illinois.....	Acts of 1913.				×
Iowa.....	School Laws, pp. 61, 85, 103, 107, 130, 267, 312, 323; acts of 1913, ch. 193.	×	×	×	
Kansas.....	School Laws, pp. 66, 74, 84, 175.		×	×	
Kentucky.....	School Laws, p. 56; Stat., 1909, sec. 4439; School Laws, 1914, p. 5.	×	×	×	×
Louisiana.....	Const. and Rev. Laws, 1904, p. 397; amendments to same, 1904-1908, p. 146; School Laws, pp. 59, 126-127.	×		×	
Maine.....	Laws of 1909, ch. 148; School Laws, pp. 4-5.		×	×	
Maryland.....	Laws of 1912, ch. 532; School Laws, 1914.			×	×
Massachusetts.....	Acts of 1906, ch. 104; Rev. Laws, 1902, ch. 25, sec. 47; acts of 1908, ch. 513; acts of 1910, ch. 508; acts of 1913, ch. 655, sec. 15, 40, 41.	×		×	
Minnesota.....	Rev. Laws, 1905, sec. 1533; State Health Laws and Regulations, p. 52; acts of 1913, chs. 415, 507; Gen. Stat. 1913, sec. 2874; Rules of Dept. of Ed., 1915, Bull. 66.	×	×	×	×

¹So great a diversity exists in the provisions of this table that it has been deemed unwise to attempt to show by it anything as to the character of the regulation itself. "X" signifies some sort of regulation, and the column headed "References" gives all sources of information for this section.

TABLE 2.—*The school site*—Continued.

States.	References.	Prox- imity of nuisances.	Availa- bility of site.	Size of site.	Miscel- laneous.
Mississippi.....	Laws of 1910, ch. 124.....		×		
Missouri.....	Laws of 1911, Senate bill 403; Laws of 1913, Senate bill 241.....		×		
Montana.....	Laws of 1913.....		×	×	
Nebraska.....	School Laws, pp. 87, 88.....			×	
Nevada.....	School Code, p. 66; Rev. Laws, 1912, sec. 6534; 119 Pacific, 770.....	×			
New Hampshire..	School Laws, pp. 30, 34-35; <i>Fogg v. Bd. of Ed. of Littleton</i> (not yet in printed court reports); Laws of 1911, ch. 46.....	×	×	×	×
New York.....	Liquor Tax Law, sec. 23, subd. 2.....	×			
North Carolina..	School Law, p. 59.....			×	
North Dakota..	Laws of 1913, chs. 265, 267.....		×	×	
Ohio.....	Laws of 1910; House bills 264, 482; School Laws of 1914; Senate bill 9.....		×	×	×
Oklahoma.....	Law of Mar. 20, 1911.....			×	
Oregon.....	Lord's Oregon Laws, sec. 2133.....	×			
Pennsylvania.....	Law of Apr. 13, 1911; School Code, p. 39.....		×	×	
Rhode Island.....	Laws Relating to Education, pp. 86, 78.....	×			
South Dakota.....	School Laws, secs. 122, 123; Laws of 1911, ch. 141; <i>Blen. Rep. State Supt.</i> , 1910-12, p. 151.....	×	×	×	
Tennessee.....	Annotated Code, 1896, secs. 6795-96; acts of 1913.....	×			×
Texas.....	School Laws, pp. 92, 93.....				×
Vermont.....	Pub. Stat., 1906, sec. 5122; Regulations State Bd. of Health.....	×	×	×	×
Virginia.....	School Laws, pp. 42, 139; Laws of 1910, ch. 264; Laws of 1914, ch. 166.....			×	×
Washington.....	Codes and Stat., sec. 4425, 4492; <i>State v. Sup. Ct. Chelan Co.</i>			×	×
West Virginia.....	<i>State v. Bd. Ed.</i> , Clarksburg, Sc. Dist. Supplement to Stat., 1899-1906, sec. 1548; School Laws, pp. 173, 175, 256; Laws of 1909, ch. 318; acts of 1913.....	×	×	×	×
Wisconsin.....					×

Proximity of nuisances.—The desire to protect schools against nuisances in the neighborhood has most often expressed itself in laws removing liquor-selling to a distance. The creation of a "dry" zone around schools has become linked with a consideration of other nuisances in only two States. In Iowa no bills, posters, or other advertising matter of liquor and tobacco shall be distributed, posted, or circulated within 400 feet of premises used for school purposes. In Louisiana many special laws have been passed removing gambling and liquor-selling from 3 to 8 miles from schools, but the schools affected are chiefly high schools and higher institutions.

The breadth of the dry zone depends principally upon whether urban or rural territory is involved. Three States—Minnesota, Tennessee, and Florida—deal with this matter only outside incorporated towns and cities. Minnesota fixes a zone of only 1,500 feet, but Tennessee practically wipes out the traffic in all except very sparsely settled districts by giving to all schools a dry zone of 4 miles radius.¹ Florida has the same provision as Tennessee, but largely nullifies it by a remarkable list of exceptions—hotels of over 25 rooms selling to guests only; incorporated social clubs selling to members only; places retailing liquors within 500 feet of incorporated towns; and saloons in towns of over 200 inhabitants where there is no other saloon

¹ Tennessee has since passed a State-wide prohibition law.

within 50 miles. Arkansas gives the right to the majority of adult inhabitants residing within 3 miles of any school to secure from the county court, by petition, a dry-zone decree covering their territory. The legislature, however, has supplemented local option by passing acts creating dry zones of 3 to 6 miles radius around nine different schools in the State.

Nine other States have set limits upon the proximity of saloons to schools, but since the law applies to city as well as country, the distances set are much less. The distance is 200 feet in Connecticut, New Hampshire, New York, Rhode Island, and Vermont; 300 feet in Oregon¹ and Wisconsin, and formerly in Utah;² 400 feet in Massachusetts. South Dakota prohibits the sale of intoxicating liquor in the same block with any school or in any block adjacent to it.

Exceptions to the operation of these statutes are rather frequent and apply chiefly to hotels and renewals of license. In Connecticut the renewals are, however, subject to the discretion of the county commissioners. As a result of this law the supreme court of the State was called upon in October, 1908, to pass on the appeal of John Schusler from the decision of the county commissioners of Hartford County in refusing to renew a license for a location at which he had been retailing liquor for the past 10 years. The refusal of the commissioners was based upon the fact that a parochial school had been opened about a year previous on a site only 75 feet from the appellant's place of business. That the said commissioners had granted a renewal in another case within 200 feet of a school was held not to affect the present case. The following dictum of the court seems especially important: "It was of no legal consequence that the site for the school was bought years after the establishment of the appellant's saloon, in close proximity to it, and after his becoming the owner of the saloon property."

In New Hampshire hotels and drug stores occupied as such on January 1, prior to the passage of the "dry-zone" law, are not affected. New York exempts from the statute hotels and saloons established prior to March 23, 1896, or established prior to the occupation of any premises within 200 feet for church or school purposes. Rhode Island exempts taverns; Vermont, drug stores and inns. In Wisconsin the use of retail liquor licenses is prohibited except in buildings where such a license was in effect on June 30, 1905. Even then, after two and a half years had passed from the time the law went into effect, a remonstrance signed by a majority of the parents or guardians of children enrolled in any public or parochial school was sufficient to prevent any license from being issued to permit business within 300 feet of said school. This

¹ Oregon has since passed a prohibition law, and the entire State will be dry after Jan. 1, 1917.

² Repealed by ch. 106, Laws of 1911.

remonstrance can not affect drug stores, hotels, and restaurants established and maintained as such prior to February 1, 1905.

Turning from what is perhaps dominantly moral hygiene, there is noted less solicitude over the purely physical hygiene of the school site. A regulation of the Delaware State Board of Health forbids that any stable, pigpen, or other building liable to become a nuisance be placed within 200 feet of any schoolhouse or within 100 feet of the school yard. The Indiana law says there must be no steam railroads, livery stables, barns used for breeding purposes, noisy industries, or unhealthful conditions within 500 feet of schools;¹ the Rhode Island law states that no swine shall be kept or any other nuisance permitted within 100 feet of any schoolhouse or of any fence inclosing the yard of a schoolhouse; the Vermont Board of Health protects schoolhouses, if in a village, from noises and unsavory odors. The Minnesota Department of Education directs that no part of a school site shall be within 500 feet of steam railroads or manufacturing plants which may be sources of noise or smoke, swampy places, livery stables or other buildings which may be sources of unhealthful conditions. The New Hampshire statute runs:

If any person shall use a building or place near a dwelling house or schoolhouse * * * for a slaughterhouse, a place of deposit of green pelts or skins, or for trying tallow, currying leather, or carrying on any other business that is offensive to the public, without the written permission of the health officers of the town, he shall forfeit \$10 for each month such building or place shall be so used.

In Wisconsin no lockup or place of temporary confinement for insane persons or other persons under arrest shall be erected within 300 feet of a building used regularly or principally for school purposes. Nevada prohibits all resorts maintained for the purpose of prostitution within 800 yards of a school, on pain of a fine of \$25 to \$300 or imprisonment for 5 to 60 days, or both. The constitutionality of this law was attacked on several grounds in the case *ex parte Ah Pah*, but the supreme court of the State on December 30, 1911, upheld the enactment, with one qualification: That the 800-yard limit fixed by the school law should be reduced to 400 yards after January 1, 1912, by virtue of a clause in the crimes and punishments act.

Accessibility of school site.—The distance that a child may be expected to walk to school is different in different States. Most of the laws governing transportation have come with consolidation, but so many of these laws are permissive that differences in school sentiment have shown themselves plainly through this avenue. Transporting pupils to high schools is optional with Maine districts.

¹ The State board of health has defined "unhealthful conditions" specifically by demanding a zone of 500 feet radius about the school site to be free from "swampy ground, body of stagnant water, cemetery, slaughterhouse, fertilizer-reduction plant, any business or manufacturing establishment which engenders noxious odors or vapors or that pollutes the surrounding atmosphere by smoke or dust."

Any consolidated district in Mississippi, any special or village districts in Ohio, *may* arrange for transportation. Any district in New Hampshire *may* purchase vehicles for the purpose. Where the law is mandatory, it is often too indefinite. For instance, every Connecticut town in which a school has been discontinued, or in which a consolidation of districts has occurred, "shall furnish, whenever necessary, by transportation or otherwise, school accommodations so that every child over 7 and under 16 years of age can attend school." In Iowa, outside of consolidated districts, transportation is optional with the district for pupils living "at an unreasonable distance." The decisions of State Superintendents Riggs and Deyoe in the cases of *Arnold et al. v. School Township of Richland*, and *Paine v. School Township of Amsterdam*, have defined $1\frac{1}{2}$ miles as the approximate limit of a *reasonable* distance. Consolidated districts in Colorado *may* transport pupils who live over 1 mile from school, and in Missouri any district *may* carry pupils who have over one-half mile to go. In Ohio no district is under obligation to haul a pupil living less than 1 mile from school. In New York the matter of transportation is within the discretionary control of the commissioner of education in the exercise of his appellate jurisdiction.

A half dozen of the States, however, have gone on record in a definite manner and with sufficient uniformity to suggest a conclusion. In consolidated districts in Kansas and Minnesota transportation is compulsory for children 2 miles from school. Missouri compels transportation of all children over $2\frac{1}{2}$ miles from school in a consolidated district. Independent consolidated districts or central schools of townships in Iowa must transport every child living outside a city, town, or village. Parents or guardians may be compelled to carry children 2 miles to the line of school transportation and receive a reasonable compensation therefor. Where the township system has been adopted in South Dakota no child may be allowed to walk over $2\frac{1}{2}$ miles, but the transportation must be furnished by the guardian at an amount graduated from 10 cents to 45 cents per day, according to distance traveled. Indiana has made a discrimination on the basis of the age of the pupil. When a school is discontinued, township trustees must arrange comfortable and safe transportation for all pupils living over 2 miles from school, but those between 6 and 12 years of age must be carried when they live over 1 mile away. An interesting decision recently came from the supreme court of New Hampshire in the case of *Fogg v. Board of Education of Littleton*, wherein it was decided that "it is unreasonable to expect or require" a boy 9 years of age to walk over 4 miles to school. The action of the board in refusing to maintain a conveyance solely for the benefit of this boy was declared to be "unauthorized and illegal."¹

¹ A summary of the laws on consolidation of schools is given in Bull. of the Bureau of Educ., 1914, No. 30.

The provision of Montana is that the site shall be "accessible"; Vermont says that it shall be as near the center of population as possible. The attitude of Florida is that schools shall not be closer to each other than 3 miles "unless for some local reason or necessity"—a phrase defined in the regulations of the State board of education to mean "unless made necessary by local geographical features." On the other hand Kentucky declares that no point on the boundary of a graded common-school district shall be over $2\frac{1}{2}$ miles from the site of the proposed building. In Pennsylvania no pupil of an abandoned school shall be compelled to walk over $1\frac{1}{2}$ miles. This implies liability of the district for transportation. In North Dakota the matter is settled by waiving the compulsory attendance requirement if it involves making a child walk over $2\frac{1}{2}$ miles to school.

The distance of a child from school seems generally to be calculated by way of the nearest public highway. Of course it is taken for granted in such cases that the school property abuts on an open road; but this has not always been true. South Dakota has found it necessary to pass a law demanding that schools be situated upon a regularly laid out highway or upon a section line. In the latter case the presumption is that a road will soon be opened leading to the school. The Indiana board of health holds that "all schoolhouse sites shall be convenient of approach, either from a public road or street." Under the Wisconsin law the supervisors may be compelled to lay a highway to the schoolhouse; any trouble in the future has been guarded against by requiring that every schoolhouse site—

obtained by purchase or grant shall be located and established abutting on a public highway or street, and no schoolhouse shall hereafter be erected on any site unless at the time of erection of such the site shall abut on a public highway or street.

Size of the school site.—The size of the school site is subject to two general classes of limitations, maxima and minima. Some States have not invested their school boards with the power of eminent domain. Most have hedged it about with careful restrictions; a few have been very generous in bestowing it. For example, Connecticut boards may condemn as much land as is needed; Louisiana boards may condemn "space sufficiently extensive to answer the purpose of a schoolhouse and ground"; in Pennsylvania "no new school building shall hereafter be erected without a proper playground being provided therefor." The only trouble with these laws is that local boards are inclined to be too easily satisfied.

That maxima have been established so much oftener than minima possibly reflects a fear that through condemnation a citizen may be made to suffer too much in the interest of the State. In at least three States the maximum size of site is less in case of condemnation than otherwise it would be. Thus, in Nebraska a district may purchase 4

acres of the school lands of the State for a site, but it can not condemn over 1 acre. In Washington the corresponding figures are 10 and 5 acres, respectively. In Wisconsin "no schoolhouse site shall contain more than 4 acres unless with the consent of the owner of the land taken therefor." The absolute maxima in certain other States, with or without the exercise of eminent domain, is as follows: Delaware, one-half acre; Kentucky and New Hampshire, 1 acre; Kansas, 1½ acres; Massachusetts and South Dakota, 2 acres;¹ Maine, 3 acres; Maryland and North Dakota, 5 acres.

Sliding scales exist in some States. In North Carolina only 2 acres may be condemned to establish a new site, but if resorted to in order to add to an existing site the total site shall not ultimately exceed 3 acres. In Iowa 1 acre is the maximum except in city, town, or village, where one block may be used, and except in certain consolidated districts and townships that possess not more than two sites, where it may run to 4 acres, or even more under certain conditions. This last larger site must be on a public road and not within 30 rods of a residence, if the owner objects. In Virginia any school board may condemn not to exceed 1 acre in a town, or 5 elsewhere, "provided that no dwelling, yard, garden, or orchard shall be invaded, nor in an unincorporated town any space within 100 feet of a dwelling, nor in the country any space within 400 yards of a mansion house." Oklahoma boards can not condemn, but may purchase as high as 4 acres of the public-school lands of the State. In Illinois no tract of land condemned outside an incorporated city or village shall be within 40 rods of the dwelling of the owner of the land without his consent.

The minima for the different States run as follows: Delaware and Florida (outside villages and cities), one-half acre; Indiana, 1 acre; Alabama (for State aid on building), North Dakota, and South Dakota, 2 acres. In Montana rural schools shall have sites of not less than 1 acre; all others, not less than half an average city block. In Nebraska and Washington minima apply only to the purchase of State school lands for sites. In Nebraska 1 acre is the minimum; in Washington, 3 acres. In New York the commissioner of education may control the suitability of a site as to size by the exercise of his appellate jurisdiction. One decision is of interest, that of the Supreme Court of Washington, ruling that the condemnation of land adjacent to a school building for an athletic and play ground is a taking for "public use," and hence within the statutes of the State providing for the exercise of eminent domain. In Ohio a law provides State aid for elementary rural schools of three classes, the amount varying from

¹ In South Dakota schools giving courses in agriculture may purchase 10 acres for site and demonstration purposes.

\$25 to \$100 per annum. One of several conditions for each class of schools is the size of site, which ranges from 1 to 3 acres for organized play, school garden, and agriculture.

Public playgrounds.—Some of the States are partially discharging their responsibility through other bodies than school boards. In Indiana the board of health and charities in cities of the first class may establish, maintain, and equip public playgrounds and public baths, and may exercise the right of eminent domain; but all school playgrounds in the State must furnish 30 square feet for each pupil and be equipped with some apparatus. In New York school districts may acquire lands for public playgrounds and recreational purposes by vote of a district meeting, and may levy a tax and issue bonds therefor. Massachusetts has thrown this matter by permissive legislation into the hands of towns and cities. Virginia cities with over 10,000 population may, as municipalities, acquire a playground for each race. Many similar laws indicate that most of our leading cities will soon meet the playground problem aside from the schools. In Minnesota the State Department of Education has made a rule that no elementary school shall be built upon a plot of ground that affords less than fifty square feet of playground per pupil. One hundred square feet per pupil will be required when conditions make it possible to secure this amount of land.

Miscellaneous regulations.—The barbed-wire fence is illegal in Connecticut and New Hampshire on or around a school site, and even within 10 feet of the site in Iowa. Drainage also is subject to regulation. Good drainage is required in Indiana, Louisiana, Texas, and Vermont. The Minnesota State Department of Education directs that all schools be situated "on high ground affording natural drainage;" made land or land impregnated with organic matter must not be selected. In New York sites not properly drained or insanitary because of proximity to swamps and lowlands or other unhealthful conditions may be discepted by the commissioner of education and the district be directed to acquire another site. The Texas and Louisiana State boards of health require that all schools be supplied with a sufficient number of garbage cans, kept covered and emptied daily. The State Board of Health of Vermont will not approve a site for a rural school unless it is protected from violent winds. The rules of the Minnesota Department of Education contain a suggestion well worthy of consideration. It reads: "To secure the best use of a site, it is recommended that not more than twenty per cent of the entire site should be used for the building, and that the building be so located that the entire frontage be at least twenty per cent of the site."

IV. THE WATER SUPPLY.

The common cup.—The most interesting point connected with safeguarding the water supply of schools is the spread in the last five years of the revolt against the common drinking cup.¹ For a number of years boards of health waged a campaign in this direction, but it was not until March, 1909, that any State took official action. Kansas was the pioneer, but other States followed rapidly, so that now over half of the entire number have either a law or a regulation regarding drinking cups. Schools may not be provided with common drinking cups without transgressing the law in Illinois, Kentucky, Maryland, Nebraska, North Dakota,² West Virginia,³ and Wisconsin.⁴ The State health authorities have forbidden the public drinking cup in Connecticut, Idaho, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Minnesota,⁵ Mississippi, Montana,⁶ New Hampshire, New Jersey, Ohio,⁷ Oklahoma, Oregon, Pennsylvania,⁸ South Carolina, South Dakota, Utah, Vermont, and Washington.⁹ In New York the common drinking cup in "public places or public institutions" is prohibited by regulation 3, Chapter VII, of the sanitary code. Jealous supervision of the powers of the State board of health has resulted in statutes delegating to the board the power to promulgate an order against common cups in Connecticut, Massachusetts, New Hampshire, and New Jersey. Colorado has a law that should practically put it in one of the above lists, the statute forbidding common cups unless sterilized after each use.

Several provisions that do not abolish the common cup regulate or limit its use. If public drinking cups are used in Texas, they, together with the water buckets or coolers, shall be scoured and sunned daily, or treated with a 2 per cent formaldehyde solution.¹⁰ The Ohio law draws the line against tin cups or tumblers.¹¹ The Indiana¹² and Louisiana State boards of health require that sanitary fountains shall be installed in towns and cities where there is a public water supply; the same is required of Ohio schools hereafter constructed, without any specification as to water supply.

The common pail.—If, however, children were at liberty to dip their individual cups into the common pail, danger still would lurk in the water supply. Hence some attention has been given to the

¹ For full text of most laws and regulations in this field up to July 1, 1912, see *Common Drinking Cups and Roller Towels*, Pub. Health Bull. No. 57, issued by U. S. Pub. Health Service.

² Laws of 1913, ch. 228.

³ Laws of 1913.

⁴ Minnesota State Health Laws and Regulations, May 1, 1912, p. 54. Ch. 61, acts 1913.

⁵ Bull. Dept. Pub. Health, Montana, vol. 6, No. 1.

⁶ Rule adopted Jan. 22, 1913.

⁷ Rule adopted Jan. 3, 1913.

⁸ Rules of State Bd. of health, 1912, p. 19.

⁹ School laws of Texas, p. 92. Rule State Bd. of health.

¹⁰ State Building Code, Part 2, title 3, sec. 22.

¹¹ Bull. 1913, No. 52, U. S. Bu. of Ed., p. 15.

receptacle for the temporary supply. The Delaware State Board of Health does not permit any open bucket or vessel to be used for storing water in any school.¹ Open receptacles are barred by the State health officers in Idaho, Louisiana, and Oklahoma.² Minnesota has decreed against the common pail, and the Indiana law calls for covered tanks. In Vermont faucets must be attached to the water tanks.³ If running water can not be had, the Virginia Board of Health allows a dipper to be used only for dipping water from the tank or cooler; the cup or glass used for drinking shall not be dipped into the water. The contents of the receptacle are to be renewed every morning, the receptacle, dipper, and drinking cup washed daily and scalded with boiling water once a week.⁴ In Louisiana the containers must be scoured daily.

Source of supply, etc.—The source of the water and the disposition of waste are sometimes prescribed. In Indiana the supply of all schoolhouses must come from driven wells, or other sources approved by the health authorities.⁵ Water from dug wells can not be used in Minnesota, but the schools must rely on the public supply, tubular or driven wells. Idaho, Indiana, and Oklahoma require that troughs or drains remove waste to a safe distance and that no pools or mud-holes be left near wells.

The Ohio State building code is very specific. A gutter or drain of concrete or sewer pipe must be constructed to carry all waste water to a distance of 20 feet before discharging it. Pumps and hydrants shall be placed in the center of a concrete or cement platform at least 6 feet in diameter. This platform must be 6 inches above the natural grade line and then graded up to within 2 inches of the top in such a manner as to run all surface water away. Ohio is alone in its effort to standardize the amount of accommodations furnished. Where sewerage system and water supply are available, there shall be one sink and one drinking fountain to every 6,000 square feet of floor area or fraction thereof. Similar equipment will be required in the basement for each 350 or fewer pupils of each sex.

V. TOILETS.

Location of outbuildings.—Twelve States have taken some action to regulate the location of outbuildings for toilet purposes. Delaware,⁶ Idaho,⁷ Indiana,⁸ Louisiana,⁹ and Montana¹⁰ require that outdoor

¹ 16th Bien. Rep. (1908-1910), p. 72.

² 2d Bien. Rep. of State Pub. Health Dept., p. 247.

³ Reg. of State Bd. of health, issued May 1, 1911.

⁴ School Laws, pp. 45-46.

⁵ School Law, p. 135.

⁶ 16th Bien. Rep., State Bd. of health (1908-1910), p. 72.

⁷ Reg. State Bd. of health.

⁸ Bull., 1913, No. 52, U. S. Bu. of Ed., p. 15.

⁹ Public School Laws (1912), p. 127.

¹⁰ Reg. 26 of State Bd. of health.

toilets shall be situated not less than 100 feet from the well or cistern. Idaho further provides that no surface drainage from a water-closet shall be permitted to reach any well or cistern; Montana holds up the approval of plans in towns of over 1,000 unless the distance limit set above is observed. In the rural districts of Vermont toilets need be only 20 feet from the building.¹ In three States connection with the sewer system is required: In Louisiana, if the closets are within 1,000 feet of the sewer; in Texas, if the schoolhouse is within 500 feet of the sewer;² in Virginia, if water and sewerage are available.³ Mississippi requires that every building used for public school purposes shall be provided with two privies maintained in accordance with the plans and specifications of the State board of health. One of these shall be so located as to be adapted for use of the girls and the other for the boys. Kentucky requires that all schools and other "places of public resort" not already connected with an approved system of sewerage shall construct privies proportioned in size and number to the persons and sex of those likely to use them. These privies are to be located "below the level, or draining away from, or as remote as possible from the well or spring," and are to be modeled after the Kentucky sanitary privy or some other plan approved by the State board of health.⁴ All these requirements have been established by State boards of health, but in two States, Nebraska and Ohio, the legislatures have acted. In Nebraska the toilets must be placed on that portion of the site farthest from the main entrance to the building.⁵

Ohio, on this point as on numerous others, has gone into the greatest detail. All vaults existing on premises accessible to a sewer shall be cleaned to the bottom and filled with ashes or earth, and no such vaults shall hereafter be constructed where a sewerage system is available. No vault or septic tank shall be placed within 2 feet of any lot line, or 50 feet of any school building, or source of water supply for drinking or cooking purposes.⁶ Cesspools may be constructed only with the approval of the local or State board of health and in case no sewerage system is available. No tight cesspools can be placed within 2 feet of any lot line, 20 feet of any building, or 30 feet of any source of water used for drinking purposes; no leaching cesspool can be placed within 100 feet of any dwelling or tight cistern, or within 300 feet of the source of any water supply.⁷

Standard equipment for outdoor toilets.—Standardization of the equipment of outdoor closets has begun in a number of the States.

¹ Rule of State Bd. of health.

² School Laws, p. 93.

³ *Ibid.*, p. 46.

⁴ See bulletin of the State board of health of Kentucky, Vol. III, July, 1914.

⁵ *Ibid.*, p. 53.

⁶ State building code, part 4, title 18.

⁷ *Ibid.*, title 16.

In Ohio no septic tank or filtration bed can be constructed until the site has been inspected, and the plans and specifications have been approved by the State board of health; and no such tank or bed can be used for the designed purpose until its construction and equipment have been approved by the same body.¹ Absolute central control and the ability to follow up plans and specifications into execution makes an admirable arrangement; it disposes of the particular defect that was found to exist in the law creating the schoolhouse commission of Utah.²

Waterproof receptacles are contemplated by the requirements in several States. The State boards of health in Idaho, Montana, and Vermont demand that boxes for outdoor closets be water-tight, but Montana waives this regulation if the vault is dug in soil approved by the health officer. Virginia compels dry closets to be maintained in a clean and wholesome condition as standardized by the State board of health. Louisiana requires for closets not connected with a sewer system, a Stiles sanitary closet, cesspool, or septic tank. New Jersey and Ohio, however, are in advance of most of the others in this regard. The State Board of Education of New Jersey requires that the vaults shall not extend beneath the floor of the closet, and that they shall be built of concrete or brick laid in cement mortar.³ Ohio's State building code contains similar provisions, but goes further in stating that such a part of the vault as extends beyond the walls of the outbuilding shall be tightly covered.⁴ Moreover, the vaults shall be given a half-inch coat of Portland-cement mortar inside and outside, and finally a cement wash, similar to the final step in constructing an ordinary water-tight cistern. The bottom of the vault must be from 6 to 8 inches thick. These tight walls shall extend 1 foot above the ground to prevent surface drainage. The material used for urinals is touched upon in four States. The Indiana law stipulates that all conduits to urinals shall be of galvanized iron, vitrified drain pipe, or other impervious material draining into a sewer or other place approved by health authorities;⁵ the Ohio law states that all receptacles used for water-closets or urinals, and all troughs or gutters employed for any such purpose, shall be of certain waterproof, noncorrosive materials;⁶ while in New York the same end is secured for new buildings through the decision of the commissioner of education to hold up all plans that do not specify nonabsorbent, noncorrosive materials in the construction of urinals.⁷ In New Jersey the latrines must be of metal if plans are to be approved by the State board of education.

¹ *Ibid.*, title 17.

² See p. 6, ante.

³ State Building Code.

⁴ Part 4, title 13.

⁵ School Law, p. 136.

⁶ State Building Code, part 4, title 11.

⁷ Circular letter of Aug. 1, 1912.

Miscellaneous provisions.—Several other provisions applying to outdoor toilets are scarcely capable of classification. In Idaho and Montana the contents of the box must be sprinkled daily with dry earth or lime during the school term and the receptacle emptied when two-thirds full. In Vermont earth closets must be provided with a box of road dust, sawdust, or ashes, and be screened against flies. These regulations are by authority of the State boards of health. But in Utah the law itself specifies the dry-earth system in the care of vaults. The vaults are to be cleaned monthly during the school year and oftener if the local health officer thinks necessary.¹ The statutes of Pennsylvania compel vaults to be cleaned or properly disinfected within 30 days after the close of each school year; the outbuilding itself is to be scrubbed, whitewashed on the interior, and the vaults covered with fresh dirt or dry-slacked lime, within 10 days of the opening of each school year.² The only other State to mention the scrubbing of the outbuildings is Louisiana, which specifies that this shall be done at intervals of a week. A rule of the Delaware State Board of Health calls for vaults at least 3 feet deep, and will not allow them to be filled nearer than within 1 foot of the surface of the ground. Wisconsin and Minnesota state that the boys' outhouse shall be provided with suitable urinals.³ Both these States are attempting to improve toilet accommodations in rural schools by making this a point to be considered in the granting of State aid. Indeed, if the electors in a Wisconsin district fail to allow the necessary funds for maintaining a proper condition of the toilets, the town clerk at the request of the school board shall arbitrarily add such amount to the district tax budget.

In Indiana the board of health has brought together several of the more valuable miscellaneous regulations of other States, modifying the form in a few cases. Both the vault receptacle and the floor of the closet must be of cement.⁴ Dry loamy earth, wood ashes, sifted coal ashes, or slaked lime must be thrown into the vault daily during the school term, and the contents of the vault removed twice per year. The vault itself must be screened against flies. An alternative to such outdoor sanitary closet is the indoor crematory closet, specifications for which are given in still greater detail.

Indoor closets.—For indoor closets very few regulations exist. Three States only have taken up accessibility of accommodations. The Ohio State building code, the rules of the Indiana State Board of Health, and a circular letter of the commissioner of education of New York, each establishes a standard of one closet for every 15 females

¹ School Law, p. 32.

² Purdon's Digest, p. 668.

³ Laws of Wis. Relating to Com. Schools, pp. 93-94; Bull. No. 40, Minn. dept. pub. inst., "State Aid," p. 5.

⁴ Bull., 1913, No. 52, U. S. Bu. of Ed., pp. 16-17.

equivalent clause requiring school buildings to have sufficient means of egress and escape from fire, and the Massachusetts supervisor of plans "may make such further requirements as may be necessary to prevent the spread of fire, or its communication from any steam boiler or heating apparatus therein."

General construction.—New Jersey, Connecticut, Indiana, Pennsylvania, and Ohio have taken up the general construction of buildings with a view to fire prevention. In the first-named State this has been done through the State building code of the State board of education, which has the power to hold up all plans by nonapproval; in Connecticut, Ohio, and Pennsylvania it is covered by the statutes; in Indiana by the State board of health. The rule in New Jersey is that two-story buildings of over four classrooms must have their outer walls of hard-burned brick, stone, or concrete, an incombustible roof, fireproof walls and fireproof floors to corridors; buildings of three or more stories must be of fireproof construction, i. e., wood may be used only for doors, windows, window frames, roof rafters, trusses, trim, and finished floors. No Connecticut schoolhouse for pupils below the high school may contain over two stories above the basement; for high-school pupils it may extend three stories above the basement, if fireproof, but all nonfireproof buildings of over seven classrooms must have their outer walls and walls separating schoolrooms from corridors built of fireproof material. Indiana limits the height of all schools to two stories above the basement. In Pennsylvania districts of over 500,000 inhabitants, all schools of two or more stories must be of fireproof construction; in other districts this requirement applies only to buildings of over two stories.

Ohio, again, is much more detailed and somewhat more strict. Schools of three stories—the maximum permitted—must be fireproof. This allows wood only for floors, doors, windows, and the usual trim of the interior of rooms. The specified height of the stories, 15 feet from floor to ceiling, makes it impossible, even with a basement, for children to be much more than 40 feet above the ground. Frame structures are permitted only for single-story buildings, without basements, with their floors not over 4 feet above the grade line, provided also that they are not within 30 feet of the lot line or any other structure and not within 200 feet of the city fire limits. Thus it happens that many schools of one story and most of those of two stories fall under the third type of construction, which is denominated *composite*. This is the same as the fireproof except for the use of wood as columns, girders, beams, and roof trusses. But if a composite building is erected in connection with one of fireproof construction, the two shall be separated by fireproof walls, and all communicating openings guarded by fireproof doors. Both fireproof walls and fireproof doors are fully standardized by law. No room accommodating over 100

persons shall be located above the second story in a fireproof building, nor above the first story in a composite building.

Special construction.—Furnace room and heating apparatus are most often mentioned under the head of special construction. Furnace, boiler, and fuel rooms in Indiana schools must be of fireproof construction; the furnace, if located in the basement, shall have a fireproof floor above it, but may never be situated immediately beneath any lobby, corridor, stairway, or exit. According to the Kansas law, furnaces are to be covered on top with asbestos or masonry, and ceilings above furnaces are to be covered with asbestos. The furnace itself shall not be within 18 inches of woodwork. Ohio allows the furnace, hot-water heating boiler, low-pressure steam boiler, and fuel supply to be within the school building if they are inclosed in a thoroughly fireproof heater room, but no boiler or furnace may be located under "any lobby, exit, stairway, or corridor." The New Jersey State Board of Education will approve no plans unless they show boiler and furnace rooms inclosed by fireproof walls, floors, and ceiling, and all openings closed by self-closing fire doors. The State schoolhouse commission of Utah goes further still, and withholds approval if the furnace or heating apparatus is placed in the basement or immediately under the building. Connecticut is more liberal, requiring only in schools of over seven rooms, not fireproof, that all wooden construction about heating apparatus shall be well protected by fireproof material.

Approval of plans in New Jersey includes several other precautions in special construction. Ceilings in buildings over one story shall be of sheet metal or plastered on metal lath. All waste paper chutes shall be of fireproof material. Chimneys may not be started upon any floor or wood beams. They shall be lined with cast iron, clay, or terra cotta pipe throughout, or, in the case of large flues, with fire brick 15 feet above the smoke inlet. All timber must be framed 2 inches clear of the brick of chimneys. Ventilating flues or ducts must not touch any wood construction. Steam or hot-water pipes, if protected by a metallic shield, shall be 1 inch from wood construction, otherwise 2 inches away. In Minnesota, whenever furnace heat is in use, the hot-air flue leading from the furnace to the schoolroom is built of brick or of heavy galvanized iron covered with asbestos. In Indiana, chimneys must extend from the ground to a point 4 feet above the highest part of the roof, and the outside walls shall not be less than 8 inches thick. North Dakota and Massachusetts have an identical law to the effect (1) that in new buildings no wooden flues or air ducts may be used for heating or ventilating purposes, and (2) that no pipe for conveying hot air or steam shall come within 1 inch of woodwork unless suitably protected by incombustible material.

Corridors and inner stairways.—The story of abundant facilities for escape from burning buildings, blocked and worthless in the hour of need, has been told so often that five States have definitely tried to forestall disaster from such a cause. The laws are similar: Stairs and other passages leading to exits shall be unobstructed (Colorado); passageways shall be unobstructed (Indiana); aisles and passageways leading to means of egress must be kept open (Massachusetts, Rhode Island); no passageway shall be less in width than the stairway or exit to which it leads (Ohio). Corridors, stairways, and toilets shall be well lighted artificially, and said artificial lights shall be kept burning when the building is occupied after dark (Ohio). Main corridors shall be at least 11 feet wide, and in buildings of more than eight rooms at least 13 feet wide (Indiana). These provisions are statutory except those of Indiana, which are the decree of the State board of health.

TABLE 3.—*Protection against fire and panic.*¹

States and references.	Blanket regulation.	General or special construction.	Corridors and inner stairways.	Exits.	Exterior escapes.	Alarms and fire-fighting apparatus.	Drills.
California: School Law, sec. 1890.	.....	.....	.....	.....	Lma.....	.....	.....
Colorado: Rev. Stat., 1908, ch. 18.	.....	.....	Lma.....	Lma.....	.....	.....	.....
Connecticut: Laws of 1909, ch. 81; laws of 1913, ch. 40.	Lma.....	Lma.....	Lma.....	Lma.....	.....	Lma.....	.....
Florida: School Laws, p. 90; Fire Code of Public Schools based on Laws of Florida, ch. 5937, sec. 6.	LBpa.....	.....	.....	Lma; LXama.	.....	LXama	LXama.
Idaho: Rev. Codes, secs. 1550-52.	.....	.....	.....	.....	Lma.....	.....	.....
Illinois: Rev. Stat. (1911), ch. 55a.	.....	.....	.....	.....	Lma.....	.....	.....
Indiana: Book of instructions by State bd. of health, p. 38; School Law, p. 133; Burns' Annotated Stat., 1908, sec. 3841; Bull., 1913, No. 52, U. S. Bur. of Ed., pp. 10, 13, 18; School Law, pp. 139-141.	XA'ma.	XA'ma.	XA'ma.	Lma; XA'ma.	Lma; LX''C''pa.	.....	.....
Iowa: Laws of 1909, ch. 220; School Laws, p. 136; Supplement, Code of 1907, sec. 4999.	.....	.....	.....	Lm (cities and incorporated towns); LA''ma; Lma.	LpXC''ma.	.....	LA''ma.
Kansas: Laws relating to common schools, pp. 90-91; Gen. Stat. of 1909, ch. 44.	.....	LBC''ma.	.....	LBC''ma.	Lma.....	Lma.....	LBC''ma.
Kentucky: Stat. of 1909, secs. 1830-32.	.....	.....	.....	.....	LpXC''m (larger cities).	.....	.....
Louisiana: Public School Laws, p. 108.	.....	.....	.....	.....	Lma.....	.....	.....

¹ Explanation of symbols:

1. Regulating authority: Statutory (legislative enactments)—L. Judicial (decisions in common or statute law)—J. Administrative (rules of State departments of education, health, etc.)—X.
2. Enforcing authority: Educational: State—A. County—B. Town—C. District—D. Health: State—A'. County—B'. Local—C'. Fire or factory inspectors, etc.: State—A''. Local—C''.
3. Character of regulation: Mandatory—m. Permissive—p. Encouraged by financial aid—a.
4. Extent of application: State wide—a. Outside certain classes of cities—b. Consolidated districts only—c. Rural districts only—d.

TABLE 3.—*Protection against fire and panic*—Continued.

States and references.	Blanket regulation.	General or special construction.	Corridors and inner stairways.	Exits.	Exterior escapes.	Alarms and fire-fighting apparatus.	Drills.
Maine: Laws of 1908, ch. 100.	Lma...			Lma...	Lma...	Lma...	
Maryland: Laws of 1906, ch. 708.					LpXA"ma		
Massachusetts: Acts of 1907, ch. 508; Rev. Laws, 1902, ch. 104, secs. 23 and 26; acts of 1913, ch. 665, secs. 11, 15, 40, 41.	Lma...	Lma...	Lma...	Lma...	Lma...	Lma...	
Michigan: Gen. School Laws, pp. 177, 74.				Lma...	LpXA"ma		LA"ma.
Minnesota: Rev. Laws, 1905, ch. 36; State Health Laws and Regulations, p. 54; Bull. No. 40, Dept. of Pub. Instr.	L (local officials) pa.	XAab.				XA"ma. LC"ma.	
Mississippi: Code of 1906, secs. 2267, 2272.			Lma...	Lma...			
Missouri: Rev. Stat., 1909, ch. 105, Art. I.					Lma...		
Montana: School Laws, pp. 121-22.						Lma...	Lma.
Nebraska: Cobby's Compiled Stat., 1907, secs. 2334-35; Law of Apr. 10, 1911; Regulations of Dept. of Labor.				Lma...	LpXA"ma		
New Hampshire: Laws relating to common schools, p. 32.				Lma...	LpXC"ma		
New Jersey: Compiled Stat., 1708-1910, p. 2325; State Bldg. Code; School Laws, p. 73.	L (municipalities) p.	XAma.	XAma.	Lma... XAma.	XAma...		
New York: Educ. Law, sec. 453.	LAm...		Lma...	Lma...	Lmb...		Lma.
North Carolina: Public Laws, 1909, ch. 637, secs. 3, 5.				Lma...			
North Dakota: School Laws, pp. 104-5; Laws of 1913, ch. 255.	Lma...	Lma...	Lma...	Lma...	Lma...		
Ohio: State Bldg. Code, part 2, title 3; <i>ibid.</i> , part 3, title 1; <i>ibid.</i> , title 7; School Laws, p. 88; acts of 1913.		Lma...	Lma...	Lma...	Lma...	Lma...	Lma.
Oklahoma: Law of Apr. 28, 1908.				Lma...	Lma...		
Oregon: School Laws, p. 63; Laws of 1913, ch. 177.				Lma...			Lma.
Pennsylvania: School Code, p. 43; Purdon's Digest, pp. 1681-82; <i>ibid.</i> , Supplement, p. 5501; School Code, pp. 169-70.		Lma...		Lma...	LpXC"ma	Lma...	Lma.
Rhode Island: Laws relating to education, pp. 80-82.			LA"ma.	LA"ma...	Lma...		
Texas: Law effective July 1, 1913.	LAm...		Lma...				
Utah: School Law, p. 30...	Lamb.	Lamb.					
Vermont: Regulations State Bd. of Health issued May 1, 1911; Gen. Laws relating to pub. instr., p. 62.			XA"ma.	XA"ma...	XA"ma...		Lma.
Virginia: School Law, p. 43; <i>ibid.</i> , p. 120.	LAm...		LAm...	LAm...	LpX (city council, county supervisors) a.		
Washington: School Laws, p. 115.							Lma.
Wisconsin: Laws of 1911, ch. 441, 378.				Lma...	Lma...	Lma...	

Number and situation of stairways.—So many States have decided upon true fire escapes, i. e., some sort of ladder, stair, or tube outside the building itself, that the number and position of inner stairways have received attention in only a few of the remaining States. The law of Texas and the Vermont State Board of Health agree in requiring that in schools of over one story there shall be two stairways as far apart as practicable. Ohio schools of fireproof construction must have at least two stairways located as far apart as possible and continuous from the grade line to the top story. Likewise the basement must have two stairways as far apart as possible, leading up to the grade line. These stairways shall be equipped with standard self-closing fire doors at each floor and surrounded with fireproof walls. Composite buildings are required to have exterior escapes, while fireproof buildings are not.¹ Connecticut and New Jersey make the number of stairways dependent on the number of classrooms. In the former, schools of over seven classrooms, not fireproof, must have fireproof stairs at opposite sides of the building. In the latter, buildings of over four and less than nine classrooms must have two flights of stairs at opposite ends of the building. If there are over eight classrooms, three or more flights must be provided, subject to the approval of the State board of education as to number and location, though one flight shall always be near each end of the building. In New Jersey all stairs of new buildings must be inclosed by fireproof walls and built of incombustible material.

The winding stair.—One of the most common regulations governing stairways has reference to turns, whereas the breadth and number of stairs, and the dimensions of treads, appear to be fraught with so much greater importance. Circular stairs or winding treads are prohibited in New Jersey, Connecticut, and Vermont. All turns must be made by platforms in Indiana, New York, North Dakota, Texas, and Virginia. North Dakota stipulates that a wider step is not a platform, and Texas fixes 4 feet as the minimum width of the platform.

Other stairway regulations.—Indiana, New York, North Dakota, Ohio, and Virginia forbid any door to open upon a stairway unless a platform or landing, at least as wide as the door, intervenes between such a door and the stairs. Indiana, Minnesota, Mississippi, New Jersey, Ohio, Texas, and Vermont require a hand rail on each side of the stairs. There must be an intermediate landing, i. e., a landing between stories, in New Jersey and Texas, while the length of flights is limited in Vermont to 15 and in Ohio and Minnesota to 16 steps. Ohio, Minnesota, and Indiana have also set a mini-

¹ In composite buildings, however, the basement stairs must be guarded by walls of incombustible material from 6 to 12 inches thick, according to the material used. The basement stairs in all cases are to be of stone, cement, or iron; the areaways around these are to be guarded on both sides by rails.

num of three risers for a flight, compelling the use of gradients for differences in floor levels that would demand fewer risers. These gradients must not rise over 1 inch in 12. The minimum width of stairs in Indiana is 5 feet; in New Jersey (except cellar stairs) and Vermont, 4 feet; in Ohio, 3 feet 6 inches; in Minnesota 3 feet. Ohio alone has set a maximum width for a single flight, 6 feet. Vermont sets a minimum total width of stairways at 20 inches per 100 pupils. Ohio sets the same figure as for minimum total width of *exits* in fireproof buildings, 3 feet per 100 pupils for the first 500, thereafter a decreasing ratio. While this appears to be much more liberal than Vermont's 20 inches, it must be remembered that one-half of the required width in composite buildings is given to inclosed fireproof stairs or fire escapes, the other half to the main-service stairs. All runs of stairs in New Jersey and Ohio are to be of uniform width, uniform rise and tread throughout. In the former State, risers shall not exceed 7 inches, nor treads 12 inches, including the projecting nosings. In the latter the following limits have been set:

Limitations of stair risers and treads in Ohio.

Classes of schools.	Maximum height of riser.	Minimum width of tread.
	<i>Inches.</i>	<i>Inches.</i>
Primary schools.....	6	11
Grammar schools.....	6½	11
Other schools.....	7	10½

Indiana also stands for a uniform rise and tread, viz, that which Ohio has set for grammar schools. All treads are to be covered with rubber or equally nonslipping surface (Ohio). New Jersey seeks to avoid slipping by specifying that corrugated metal safety treads are to be embedded in concrete stairs. No closet for storage can be placed under any stairs (Indiana, Minnesota, New Jersey, Ohio).

Doors to open outward.—About half the States have dealt in some manner with exits from school buildings. The various statutes and rulings touch in different ways the number of exits, their situation, their size, and especially the swinging of doors, together with other important topics. The following States require that all doors open outward:

Without additional qualification—Colorado, Indiana, Michigan, Minnesota, New York, Vermont.

For buildings over one story—Kansas, New Jersey, Pennsylvania, Virginia, Wisconsin (all buildings in cities).

For buildings with more than one room—Florida, Mississippi, North Carolina, North Dakota.

For buildings with more than two rooms—New Hampshire.

Public school buildings only specified—Florida, Louisiana.

Public and private schools both specified—Kansas.

Outer doors only specified—Florida, North Dakota, Ohio, Pennsylvania (in old buildings).

Outer doors and all others leading thereto—Connecticut, Indiana, Iowa, Louisiana, New Jersey, Oregon, Pennsylvania (in new buildings), Wisconsin.

To affect cities and incorporated towns only—Iowa.

Leading from principal room and building—Nebraska (not retroactive with respect to rural schools).¹

If double or storm doors are used in Indiana, the outer ones shall be without fastenings, but held in place by spring hinges.

Louisiana and New Jersey permit expressly the use of swinging doors, but in the latter State they must be provided with plate-glass windows. In Ohio double-acting, sliding, or revolving doors are forbidden. Even those doors that according to law must swing outward shall be so arranged that they shall not in so swinging obstruct any other passageway.

Doors to be unlocked.—With the exceptions noted in parentheses following, these States demand that all doors be unlocked during school hours: Colorado, Connecticut, Indiana, Iowa, Kansas (public and private, if over one story), Michigan, North Dakota, Oregon (exit doors only mentioned), Wisconsin. New York, North Dakota, and Vermont provide that the standing leaf of double doors shall be fastened with movable bolts operated simultaneously at top and bottom by one handle at a convenient height on the inner face of the door. All exit doors in Indiana must be unlockable from within. In New Jersey all exit doors, and in Ohio all doors leading directly to the outside or simply toward the outside, must be incapable of being locked so as to prevent their being opened by turning a knob or pressing a bar or lever from the inside. Rhode Island, while silent regarding exits in ordinary service, provides that all doors or windows leading to fire escapes shall swing outward and be unlocked during school sessions.

Number of exits.—There is more uniformity as to egress from rooms than as to number of outer exits. In Indiana and North Carolina all rooms above the second story must have more than one means of egress. The Massachusetts acts of 1913 say that all rooms containing 10 persons, whether or not above the second story, shall have more than one means of egress. Ohio makes two exits mandatory for each room in buildings of composite construction, one of these to lead to the exterior fire escape or stairs, the other to the corridor. All basement rooms used by pupils shall have an exit aside from the usual means of entrance and egress. In buildings of frame construction there shall be two exits from each room, one of them leading directly to the open with steps to the grade. Kansas requires that above the first story there shall be two exits separate from those for the lower floor, but suitable iron or steel fire escapes

¹ This affects practically all rural schools, since the law was enacted in 1877.

may be provided in lieu of these exits. Maine requires only that there shall be two means of egress from each story above the first, while in New Jersey there shall be an exit to the ground for every flight of stairs leading to the first story. Connecticut demands at least one exit at opposite ends of nonfireproof buildings containing over seven classrooms, and a fireproof door at the head of the basement stairs.

Width of exits.—The Colorado law reads that doors must have a width of 5 feet for every 250 persons seated within. North Dakota ignores the number of pupils entirely and compels all schools of over one room hereafter erected to have an exit at least 4 feet 6 inches wide. While the laws of all other States except Ohio make no requirements, the latter State has worked the ground over pretty thoroughly. In the first place exit doors in addition to being level with the floor must not be less than 6 feet 4 inches high and 3 feet wide. The maximum width is 6 feet. The total width of means of egress from fireproof buildings is graduated, since this classification includes the largest structures, in the following manner:

To accommodate not over 500, width of 3 feet per 100 persons.

To accommodate 500–1,000, additional width of 2 feet per 100 additional persons.

To accommodate over 1,000, additional width of 1 foot per 100 additional persons.

The buildings of composite construction must have exits 3 feet in width per 100 persons accommodated. Frame buildings, being limited to one story, are cared for by two 3-foot exits.

Fire escapes.—The decision as to number, location, and character of fire escapes is left more to the discretion of officials than anything connected with fire protection. Thus far in the discussion it has been mainly a question of the *law* on stairways, exits, etc. Now it becomes largely a question of *technical judgment* exercised under law. The local fire officials in Iowa are allowed to determine the number of fire escapes, if more than one is to be erected. In Indiana the local or the State fire officials may determine both the number and the type of escapes, though the more vital questions go to the chief inspector of the State. In Virginia, by State law, the city council in municipalities, elsewhere the county supervisors, decide upon character and design of escapes. The Kentucky law gives full control of fire escapes in cities of over 10,000 to the local fire chief. The Michigan law permits factory inspectors, whenever they see fit, to require schools of over one story to be provided with fire escapes, and to make out specifications for the same. The State fire marshal of Maryland may compel the erection of such means of exit as he judges proper, and the commissioner of labor in Nebraska also has very large powers. The regulation of fire escapes in New Jersey and Vermont is left to central administrative authorities—to the State board of education in the former, and to the State board of health in the latter. Eleven

States rely in part or wholly upon administrative regulations, 13 upon statutory requirements.

Relation to height of building.—The height of the buildings affected is of great consequence. The Maine, Massachusetts, and Maryland laws do not state what height of building is within the statute, and the same is true of the administrative rules of New Jersey and Vermont. The Ohio law requires exterior escapes even from one-story buildings, unless of fireproof construction. One or more escapes for all buildings over one story is the standard in California, Michigan, and North Dakota. Only those over two stories are covered in Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Nebraska, New Hampshire, New York (except New York City), Oklahoma, Pennsylvania, Rhode Island, and Wisconsin. The Virginia law applies only to buildings over three stories.

Number of escapes.—In the majority of cases the legal number of fire escapes is indefinite. The Indiana, Iowa, Kansas, Kentucky, and Wisconsin statutes speak of "one or more," and many other States leave the inquirer in doubt. Scarcely a half dozen have standardized their regulations on this point. Illinois and Missouri schools must have one escape for every 50 persons above the second story. Pennsylvania schools must have two escapes if there are over 100 people above the second story. Oklahoma is more strict, with an escape for every 30 above the second story; Nebraska cuts the number to 25. New Hampshire adopts a different basis, viz, one escape for every 150 feet or fraction thereof that the building measures in length. Rhode Island's law directs that the escape or incombustible stairs be at each end of the building.

Accessibility.—The accessibility of fire escapes was to some slight extent discussed under "Exits."¹ This was unavoidable, since some of the laws make no distinction between those exits leading to fire escapes and those used for ordinary purposes. Escapes are usually reached through windows, but in Massachusetts, New Jersey, and New York doors must be used. In New Jersey it is provided that the doors for this purpose must be cut to floor level. The means of access shall be one or more windows at each story in Illinois, Indiana, Iowa, New Hampshire, Oklahoma, and Pennsylvania; two windows at each story in Nebraska; and "at least two" at each story in Wisconsin. North Dakota demands that the escape be accessible from each schoolroom. Idaho, Maine, and Missouri stipulate only that the escape shall be accessible from each story. In the following States the means of access just mentioned apply only above the first story: Indiana, New Hampshire, New York, North Dakota, and Wisconsin. The Michigan law speaks of "landing and balconies at each story above the first," but does not mention their accessibility.

¹ See pp. 40 and 41.

From the standpoint of the interior of the building, a few miscellaneous provisions relate to exits to escapes.¹ In Florida the State superintendent has decided that all doors and windows leading to fire escapes shall be labeled accordingly; and Vermont and Pennsylvania have a similar regulation. According to the Iowa and Oklahoma statutes, signs at all landings and in all rooms shall signify the location of escapes. Massachusetts fixes 5 inches as the minimum height of the letters that shall be used to mark each exit; Ohio compels the use of letters 6 inches high. In Indiana the lower sash of windows must open outward or upward. Window exits in Ohio are indirectly prohibited. They may lead only to a type of fire escape that is not to be used on schools.

Landings for escapes.—Another point closely connected with accessibility of escapes is the custom of placing landings or balconies opposite exits. Platforms of some sort must connect with exits in Indiana, Iowa, Maine, Massachusetts, Michigan, Missouri, Nebraska, New Hampshire, North Dakota, Ohio, Oklahoma, Pennsylvania, Vermont, and Wisconsin. In Ohio there must even be landings between stories if necessary to keep flights from exceeding 18 risers. Massachusetts regulations say not exceeding 15 nor less than 3 risers in stairs. No winders are permitted. Balconies must be provided with railings in Indiana, Maine, Massachusetts, Missouri, Nebraska, Ohio, Pennsylvania, Vermont, and Wisconsin. The railing is to be 3 feet high in Indiana, Missouri, and Pennsylvania. Vermont demands 2 feet 10 inches; Wisconsin 2 feet 9 inches. Ohio varies the standard from 2 feet 6 inches to 4 feet, according to circumstances. In Vermont and Nebraska the space below the railing must be filled in with some sort of netting. Commonly the rail is specified to be of the same incombustible material as the fire escape itself. The floor of the landings has not been overlooked. In Nebraska it must be on a level with the story, and in Vermont not more than 9 inches below the sills of communicating windows. In Ohio this is reduced to 7 inches. The size of platforms is mentioned in the statutes of at least four States; in Vermont they must be 4 feet wide; in Wisconsin, 3 feet 4 inches; in Nebraska, as wide as the windows and 2 feet deep; in Ohio, not less than 3½ feet square in any case, and under some circumstances larger still. The load capable of being borne per square foot of landings brings out some difference of opinion. The Nebraska law calls for strength sufficient to bear a load of 300 pounds per square foot, but 75 and 80 pounds is the average regulation as shown by the laws of Ohio, Pennsylvania, Vermont, and Wisconsin.

The materials of escapes.—It seems scarcely necessary to enter into a review of the material to be used in the construction of escapes,

¹ References bearing on this paragraph are given under "Exits" in Table 3.

since the very term "fire escape" implies incombustible material. Most of the laws are carefully framed; such expressions are found as "fireproof," "incombustible," "iron," "wrought iron," "steel," etc. The type of the escapes is very important and does not show so great uniformity. Aside from the discretion vested in certain executive authorities, the statutes and published regulations of administrative bodies make possible the following summary of permissible structures for fire escapes:

Ladders—Idaho, Iowa.

Ladders or stairs—Illinois, New Hampshire, Oklahoma.

Stairs—Massachusetts, Missouri, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Vermont, Wisconsin (not retroactive).

Stairs, chutes, or toboggans—Nebraska.

How made secure.—Safety of escapes is contemplated by several provisions that have to do with the method of fastening to the building. Indiana requires that the fastenings extend clear through the wall. Wisconsin calls for the support of the stairs by the balcony, and of the balcony by brackets. Ohio provides for three different forms or types of escape. One is supported by brackets from the wall of the building. Another may run parallel with or at right angles to the wall of the building, and is independently supported by columns at a distance of at least $2\frac{1}{2}$ feet from the building. The third is a tower 8 feet from the building, with the stairs between any two adjacent stories broken into two flights running in opposite directions. Bridges connect this type of escape to the building at each story.

Extent of escapes.—When the extent of escapes is mentioned, aside from accessibility at different stories, it is principally to insure that the inmates shall be able to reach the ground without delay or danger. Missouri, for instance, provides that the escapes shall extend to the ground. Indiana requires a drop ladder 16 inches wide from the lower platform to the ground. Wisconsin substitutes for the drop ladder a permanent balance stairway. Ohio interdicts the use of any outside stairway or fire escape unless it comes within 8 feet of the grade line.

Slant.—Slant is regulated in two ways. The maximum degree of slant is set down as 45° in Indiana, Pennsylvania, and Wisconsin, and as 55° in Missouri. The matter is settled in other States by the regulation of treads. The maximum height and width of tread in New Jersey are 7 and $10\frac{1}{2}$ inches, respectively. This tends toward a slant of less than 45° . Vermont fixes the angle satisfactorily with a minimum tread of 9 inches and a maximum rise of $8\frac{1}{2}$ inches. Ohio does likewise with a fixed tread of 10 inches and a riser of 7 inches.

Railings.—Handrails on escapes, apart from platforms, are required on both sides in some States even when the escape does not diverge from the building. Vermont fixes a minimum of 2 feet 10

inches, North Dakota one of 2 feet 6 inches, Wisconsin one of 3 feet. New Jersey leads all with a screen 5 feet high on the outside. Ohio has a varying requirement of from 2 feet 7 inches to 3 feet 7 inches, the distance to be measured perpendicularly from the nosing of the step.

Miscellaneous.—The width of escapes varies widely, as can be seen from the following:

Inches.

20.—Nebraska.

22.—Wisconsin.

24.—Pennsylvania.

36.—New Jersey, North Dakota.

40–44.—Ohio.

So also is there variation in standards for strength of escapes. Pennsylvania places 400 pounds as the load per tread; Vermont places only 200. Vermont figures throughout on a safety factor of 4. Vermont, too, requires a strength of 100 pounds per step for the flight as a whole; Wisconsin insists on 150 pounds; Ohio has several provisions of a like character. Escapes are not to pass a window unless unavoidably (Missouri); if they pass a window, the window is to be glazed with wire glass (New Jersey). All surfaces of platforms and stairs shall be of "rough diamond" to prevent slipping (Nebraska). Besides the stair escapes there shall be in each room above the second story a rope 1 inch in diameter securely attached to a chain over a window. This rope shall be long enough to reach the ground (Pennsylvania). Maine, Massachusetts, New York, Ohio, Vermont, and Wisconsin, especially warn that all escapes shall be kept free from various obstructions, such as snow, ice, etc. The doors to escapes must not be bolted or locked during school hours (New York).

Penalties.—Penalties are more consistently announced by the various States for violation of the laws on fire protection than for the violation of any other provision in the whole code of school hygiene. Not all of these have been noted in the examination of statutes, but some samples have been collected. Michigan is one of the most severe, with a fine of from \$100 to \$1,000 and imprisonment of from three months to a year. Imprisonment is not a rare penalty, however.

Alarms and fire-fighting apparatus.—In five States schools of certain sizes must have a fire-alarm system. Schools of over three rooms come under the law in Minnesota. In Connecticut and Ohio (except one-story buildings without a basement) there must be gongs located in the halls and operated from each story; but in Connecticut a bell in each room, similarly operated, may replace the gong. In Montana there must in all schools of over 30 pupils be a fire gong operated from each room and from the basement. In Florida special gongs to be

used for fire signals only must be capable of operation from both the basement and the office floor, and a fire-alarm box must be located in the principal's office.

One chemical fire extinguisher on each floor is required in Florida, Kansas, and Minnesota; one for each 2,000 square feet of floor area or less on each story above the basement in Ohio; one on each story above the first in Minnesota (if there be over two stories). Massachusetts requires that there be in readiness on each story above the second pails of water or other portable apparatus, or a hose attached to suitable water supply and capable of reaching any part of the story. Maine demands that each story above the first shall be equipped with some portable fire apparatus or a hose attached to a suitable water supply. In Ohio a standpipe and a hose in the basement are sufficient, unless a 75-foot hose will not reach all parts of the building, in which event other standpipes must be constructed. In Minnesota, buildings over two stories used for educational purposes shall, "when practicable," be provided with a 1½-inch inside standpipe with sufficient 1½-inch hose connected therewith on each floor and sufficient pressure either constantly maintained or available through pumps at a moment's notice, or a 2½-inch metallic standpipe on the outside with accessible connections at each story. In cities and villages where there is a water supply, Wisconsin requires that there shall be attached to fire escapes a 3-inch standpipe, but no connection must be maintained except on the roof.

Drills.—The importance of fire drills has appealed to several States. Florida specifies drills for public schools only; Michigan and Iowa, for public and private schools. It is probable that most of the other States contemplate only the public schools in prescribing drills. The drills must occur as often as once a month in 9 of the 11 States maintaining them; in Washington, semimonthly; in Montana, weekly. The size of schools that must practice the drills varies in the following manner for the different States:

Schools subject to law on escapes, exits, and fire-fighting appliances—Pennsylvania.
Schools of over—

30 pupils—Montana.

50 pupils—Vermont, Washington.

50 pupils in average daily attendance—Ohio, Oregon.

100 pupils—Kansas.

100 pupils and over 1 story high—New York.

Schoolhouses over 1 story high—Iowa.

Florida and Michigan do not state any exceptions to the liability to keep up the drills. Very little other direction is given for this exercise. The drills in Florida are to include movement with unobstructed exits and the diversion of the lines to exits not regularly used, as well as the use of fire escapes. In Pennsylvania the drill is to include the use of the escapes and other appliances.

VII. LIGHTING.

Though the lighting of schools has not received the stress in regulations and statutes that hygienists claim it deserves, the aspects of the matter regarded in different States have been to a considerable extent the same, thus making a tabular presentation of some value.

TABLE 4.—*Lighting.*¹

States.	References.	Light ratio.	Direction.	Height of windows.	Color of walls, ceiling, shades.	Miscellaneous.
Delaware.....	Sixteenth Bien. Rep. of State Bd. of Health, p. 72.	.....	XA'ma	.....	.....	.....
Indiana.....	School Law, p. 134; Bull. 1913, No. 52, U. S. Bu. of Ed., p. 11.	L m a ; XA'ma	Lma	Lma	Lma	XA'ma.
Louisiana.....	Pub. School Laws, p. 125.	XA'ma	XAma	XAma	XAma	.....
Minnesota.....	Rules, Dept. of Ed., Bull. 56.	X A 'm	X A 'm	X A 'm	X A 'm	.....
Montana.....	Regulation 26, State Bd. of Health; Laws of 1913.	(towns over 1,000); Lma	(towns over 1,000); Lma	(towns over 1,000); Lma	.....	.....
New Jersey.....	State Building Code.....	XAma	XAma	.....	.....	XAma.
North Dakota.....	Gen. School Laws, p. 103.	Lma	Lma	.....	.....	.....
Ohio.....	State Building Code, part 2, title 3.	Lma	Lma	Lma	.....	Lma.
Pennsylvania.....	School Code, p. 42.	Lma	Lma	.....	.....	.....
South Dakota.....	Bien. Ren. of Supt. of Pub. Instr. (1910-1912), p. 155.	.....	XAma	XAma	.....	XAma.
Texas.....	Law effective July 1, 1913; acts of 1913, ch. 120.	Lma	Lma	Lma	.....	.....
Vermont.....	Regulations State Bd. of Health issued May 1, 1911.	XA'ma	XA'ma	XA'ma	XA'ma	.....
Virginia.....	School Laws, pp. 43-44.	LXBma	LXBma	.....	.....	.....

¹ For explanation of symbols, see p. 7.

Light ratio.—Students of school hygiene have, as a rule, decided on 1 to 5 as the proper ratio of window area to floor area, and legislative enactments and administrative rules have usually followed this minimum. The standards in different States, so far as established, are exhibited below:

1 to 4—Virginia.

1 to 5—Indiana (if light is from the north), Minnesota, New Jersey, North Dakota, Ohio (study, class, and recitation rooms, and laboratories), Pennsylvania, Vermont (1 to 4 recommended).

1 to 6—Indiana, Texas.

1 to 7—Louisiana, Montana (all schools).

1 to 10—Ohio (play, toilet, and recreation rooms).

It is not infrequent to find "actual glass area" mentioned instead of "window area." North Dakota permits the use of reflecting lenses to offset a deficiency in actual lighting area; New Jersey will allow a 10 per cent deficiency to be corrected by the use of prism glass in the upper sash.

Direction of light.—Under the head of "Direction of light" a number of possible rules may be taken up. Children must not sit facing a

window (Delaware, Pennsylvania, South Dakota, Texas). A stronger provision is for light from the left, or left and rear only (New Jersey, North Dakota, Ohio, South Dakota, Vermont, Virginia). Montana's law for light is from left and rear. Indiana is the only State which has gone to the logical limit in protecting the eyes of both pupils and teachers by permitting light only from the left, except for left-handed students. This exception is without force obviously, since nowhere have left-handers been segregated. Minnesota and Texas have also gone some distance toward unilateral lighting, but in Minnesota exception is made of those unusual classrooms over 24 feet wide. Texas demands that the main light come from the left in all 1-room schools, and in larger schools as nearly as architectural demands and the systems of ventilation will permit.

The Minnesota Department of Education is the only body that has referred in regulations to the points of the compass from which light should come. This solitary instance in itself is evidence of the disagreement that still obtains among those who have thought and written so much on this particular subject. The Minnesota regulation is:

Buildings shall be so placed that each room, except such as may be herein specified, shall receive sunlight during some part of the day. Laboratories, manual training rooms, rooms for mechanical and freehand drawing, and other rooms not continuously used for recitation and study, may be lighted from the north. Light from the east is most desirable. Light from the west holds second place. Light from the north as well as from the south should be avoided in school rooms and study rooms.

Height of windows.—Closely allied to direction of light and light ratio is the height of the windows. Hygienic considerations apply especially to the height of their tops. Minnesota, South Dakota, and Vermont require that the windows shall approach as near the ceiling as possible under the usual architectural limitations. Indiana and Montana make the permissible difference in height of ceiling and of windows not over 1 foot. Ohio makes it 8 inches, Texas reduces it to 6. It is apparent, nevertheless, that however close windows may come to the ceiling, a low ceiling in a broad room will prevent proper lighting. Hence we find in Ohio that the height of the window head above the floor must always be 40 per cent of the width of the room, if lighting is unilateral. And in Texas no part of a study hall or classroom is to be further from the window than twice the height of the window from the floor, except where adequate skylights are provided. The height of the window sill from the floor may also be of hygienic significance if the room is ventilated by windows. No maximum distance from the floor is given in any State, but the minimum is 4 feet in Indiana and Vermont, 3½ in Texas.

Interior color scheme.—The color of walls, ceilings, and window shades is deserving of far more attention than it has so far received.

Indiana directs that the shades shall be of some neutral color, "as blue, gray, slate, buff, or green." In Vermont they are to be gray or buff, two for each window, hung in the center, so that either the lower or the upper half may be shaded. Minnesota has nothing on color, but has declared that translucent rather than opaque shades shall be used. Indiana takes ground for a neutral color for walls and ceilings also, such as "gray, slate, buff, or green." Vermont requires light gray, buff, or greenish walls.

Miscellaneous.—Among the miscellaneous provisions there are some interesting clauses from the Ohio statutes on exposure and artificial lighting. No room containing windows for lighting any schoolroom shall be nearer than 30 feet to any opposite building, structure, or property line, nor may windows used for lighting schoolrooms open on courts, unless the wall of the court opposite such windows is at a distance equal to the height from the lowest window sill to the top of the wall of the building. This insures that direct light may come from an angle not over 45° from the horizontal. A similar condition is secured as to areaways for lighting basement windows, by requiring that the width of the area shall be equal to the height from the lowest window sill to the adjoining grade line. In Indiana, whenever any external object interferes with the proper lighting of a schoolroom, prism glass is to be used for the proper projection and diffusion of the light.

New Jersey and South Dakota have tried to guard against cross shadows by directing that windows be as close together as possible. Indiana confines ceilings within the limits of 12 to 14 feet, and does not permit rooms over 25 feet wide. The window sash shall not have over four lights, and the tops of all windows shall be square.

If gas is used in Ohio schools there shall be a minimum of one 3-foot burner—

Per 15 square feet floor area in auditoriums and gymnasiums.

Per 24 square feet floor area in halls and stairways.

Per 12 square feet floor area in class and recitation rooms.

Burners shall be placed 7 feet above the floor line and on fixtures that do not move or swing. If electricity is used there shall be a minimum of 1 candlepower—

Per 2½ square feet floor area in auditoriums and gymnasiums.

Per 4 square feet floor area in halls and stairways.

Per 2 square feet floor area in class and recitation rooms.

Indiana is less precise, but calls for fixtures for artificial lighting to be placed near the ceiling and the rays to be deflected upward by proper shades.

VIII. HEATING.

In this section the apparatus employed for heating will be ignored as far as possible, that the subject of ventilation may be left for consideration at its proper place. The consequence is that provisions affecting heating will be found unusually homogeneous. The primary concern is the temperature of the various rooms. This is to be kept at 70° F. in all sorts of weather in Delaware,¹ Idaho,² Indiana,³ Massachusetts,⁴ Montana,⁵ New Jersey,⁶ New York,⁷ Pennsylvania,⁸ South Dakota,⁹ and Vermont.¹⁰ The statutes of two of these States speak of the "average" temperature as 70°, but the meaning of "average" is doubtful. Possibly it means at some reasonable height above the floor. The required temperature in Montana applies only to schools in towns with over 1,000 population. In Massachusetts it applies to corridors as well as rooms. Ohio makes a differentiation between rooms.¹¹ The heating system there must be able to maintain in all corridors, hallways, playrooms, toilet rooms, recreation rooms, assembly rooms, gymnasiums, and manual training rooms a uniform temperature of 65° in zero weather; but all other parts of the building must be kept up to 70°. An exception is made, however, in favor of rooms with one or more open sides, used for open-air schools. Indiana covers emergencies for which no one may be responsible by providing that if the temperature falls to 60° or below without immediate prospect of 70° F. being attained, the school shall be dismissed.¹² The North Dakota law merely reads that the fresh air shall be warmed to 70° F.¹³

The jacketed stove.—The abuses that arose a generation ago from seating pupils adjacent to a direct source of heat have largely been abolished; they went with the unjacketed stove. This insanitary contrivance has been disposed of in many States by modern requirements regarding ventilation which the unjacketed stove can not meet. But in a few cases actual prohibitory legislation or ruling has been judged necessary. Indiana demands a jacket of two sheets not less than three-fourths of 1 inch apart.¹⁴ The outer sheet is to

¹ Rule State Bd. of Health, Sixteenth Bien. Rep. State Bd. of Health, p. 72.

² Rule XXXIX of State Bd. of Health.

³ School Law, p. 135.

⁴ Rules of Inspector of factories and public buildings.

⁵ Regulation 26, State Bd. of Health.

⁶ State Building Code.

⁷ Ruling of Commis. of Ed., Circ. Letter of Aug. 1, 1912.

⁸ School Code, p. 43.

⁹ School Laws, p. 74.

¹⁰ Regulations of State Bd. of Health, issued May 1, 1911.

¹¹ State Building Code, Part 2, title 3, sec. 21.

¹² School Law, p. 136.

¹³ General School Laws, p. 103.

¹⁴ Bull., 1913, No. 52, U. S. Bu. of Ed., p. 12.

consist of heavy galvanized iron, or other equally durable material, and to be lined with sheet asbestos; the inner jacket shall be of tin or some "equally efficient" metal. The jacket is to extend to the floor and be not less than 3 inches from the stove.

Pennsylvania demands merely some sort of a jacket.¹ Delaware permits the alternative of jacketing the stove or seating pupils at least 6 feet away from it. In South Dakota no plans will be approved by the State superintendent unless stoves have a metal jacket extending 1 foot or 2 feet above the stove, with arches around the bottom extending 8 or 10 inches from the floor.² All ventilating stoves in Ohio schools (and ventilation is required in every school) must have a jacket of galvanized or black iron, extending from a point 4 inches above the stove to the cast-iron tray on which the stove stands. This tray must be 3 inches high and of the same size as the inclosing jacket.³ North Dakota tries to abolish the unjacketed stove by State aid.⁴ Minnesota uses the same force to secure a shield of Russia iron or copper-plated steel, with a lining of asbestos and an inside lining of tin, with an ample air space between. Such a shield must stand 6 inches away from the stove and the lower edge must be not less than 12 inches above the floor.⁵

Miscellaneous.—Pupils are to be protected from drafts, too, according to a few provisions. Vermont and Massachusetts forbid drafts which result in differences of over 3° in temperature between any points on the breathing zone of the room. All sources of heat must be so jacketed in buildings hereafter constructed in Texas that desks near the source of heat shall not be more than 5° hotter than those on the distant side of the room, and systems of heating either classrooms or study halls shall be equipped with a regulator which will automatically control the temperature of the room to within 2° of any set standard.⁶ If windows are relied upon for ventilation in Pennsylvania, they must be equipped with some device to protect pupils from currents of cold air. The Indiana law prohibits direct radiation in study rooms, but it may be used in halls, offices, laboratories, and manual training rooms. The Vermont Board of Health has advised that if the building is of wood, it can be made warm by using heavy building paper or filling in between the sheathing and lath with clean, dry sawdust. Pennsylvania requires a thermometer in every schoolroom or recitation room.

¹ School Code, p. 42.

² Bien. Rep. Supt. Pub. Instr., 1910-12, p. 159.

³ State Building Code, Part 3, title 10, sec. 1, 3.

⁴ State Aid to Consolidated, Graded, and Rural Schools.

⁵ Bull. No. 40, Dept. of Pub. Instr.

⁶ Law effective July 1, 1913.

IX. VENTILATION.

With less than half the States saying a word on ventilation, and about half of these using their power only through approval of plans for new buildings, conditions are far from what they should be. Table 5 shows the general status of the subject of ventilation to date.

TABLE 5.—*Ventilation.*¹

States.	References.	Floor space.	Air space.	Rate of air change.	Location of inlets and outlets.	Size of inlets and outlets.	Windows or doors in ventilation.	Miscellaneous.
California	Rules and Regulations State Bd. of Ed., sec. 9.	.....	.....	.....	.....	.....	XAma..	
Delaware	Sixteenth Bien. Rep. State Bd. of Health, p. 72.	.....	.....	.....	.....	.....	XA'ma..	
Indiana	School Law, pp. 134, 135; Bull., 1913, No. 52, U. S. Bu. of Ed., pp. 11, 14, 15.	.....	Lma....	Lma; XA'ma.	Lma; XA'ma.	Lma; XA'ma.	.....	
Louisiana	Public School Laws, p. 125.	.....	XA'ma..	XA'ma..	.....	.....	XA'ma..	
Massachusetts.	Regulations of inspector of factories and public bldgs.	.....	.....	XA'ma..	.....	XA'ma..	.....	
Minnesota.	Rules, Dept. of Ed., Bull. 56.	XAma..	XAma..	XAma..	XAma..	XAma..	.....	XAma.
Montana.	Laws of 1913; Regulation 26, State Bd. of Health.	Lma....	Lma; XA'm (towns over 1,000).	.....	.....	.....	.....	XA'm (towns over 1,000).
New Jersey.	State Bldg. Code....	XAma..	XAma..	XAma..	.....	XAma..	.....	XAma.
New York.	Education Law, sec. 451; Circ. letter of Aug. 1, 1912.	XAmb..	XAmb..	XAmb..	.....	.....	.....	XAmb.
North Dakota.	Gen. School Laws, p. 103; State Aid to Consolidated, Graded, and Rural Schools.	LXAma	LXAma	LXAma	XAeb..	XAeb..	.....	XAeb.
Ohio.....	State Bldg. Code, part 2, title 3; Ibid., part 3, title 10; School Laws, 1914, S. B. 9.	Lma....	Lma....	Lma....	Lma....	Lm....	.....	Lma.
Oklahoma.	Second Bien. Rep. State Pub. Health Dept., pp. 246, 247.	.....	XA'ma..	.....	.....	.....	XA'ma..	
Oregon.	School Laws, p. 43.	.....	.....	.....	.....	.....	Lma	
Pennsylvania.	School Code, pp. 42-43.	Lma....	Lma....	Lma....	.....	.....	Lma	
South Dakota.	School Laws, sec. 237; Bien. Rep. of Supt. of Pub. Instr., 1910-1912, p. 159.	Lma....	Lma....	Lma....	XAma..	XAma..	.....	XAma.
Texas....	School Laws, p. 92; law effective July 1, 1913; acts of 1913, ch. 120.	.....	.....	Lma; XA'ma	Lma....	.....	.....	Lma.
Utah.....	School Law, p. 30.	Lmb....	Lmb....	Lmb....	.....	.....	.....	Lmb.
Vermont.	Regulations of State Bd. of Health.	XA'ma..	XA'ma..	XA'ma..	XA'ma..	XA'ma..	.....	XA'ma.
Virginia..	Laws of 1908, ch. 187; School Laws, pp. 43, 45.	LXBmb	LXBmb	LXBmb	.....	.....	.....	LXBmb.
Washington.	School Laws, p. 124.	.....	.....	.....	.....	.....	XAma..	
West Virginia.	Code, Annotated, 1906, sec. 4382; acts of 1915.	.....	.....	.....	.....	.....	.....	LXA'pa.
Wisconsin.	Laws of 1907, ch. 600.	.....	.....	.....	.....	.....	.....	LXApe.

¹ For explanation of symbols, see p. 7.

Floor space.—The figures given are probably not supposed to apply to assembly rooms, but to study and recitation rooms. This is stated plainly in some of the laws. Ohio is the only State which has varied the amount according to the age of the students. The minima in square feet per pupil are as follows:

Sq. ft.

12—North Dakota.

15—Montana, New York, Pennsylvania, Utah, Virginia.

16—Ohio (primary grades).

18—Minnesota, New Jersey, Ohio (grammar grades), South Dakota¹, Vermont.

20—Ohio (high schools).

35—Minnesota (rooms for manual training or domestic science).

Air space.—Minima in air space per pupil may be fixed either in gross or by specifying the floor space per pupil and also the height of ceiling. Where the two methods have been combined, it sometimes happens that the air space required is greater than the product of minimal floor space and height of ceiling; hence at least one of the minima must be exceeded. Where this is the case the figures in parentheses are given to indicate the legal minima in floor space and ceiling height. The numerals at the beginning of each line below is the minimum cubic feet of air space per pupil.

Cu. ft.

200—Louisiana, Montana, New York, North Dakota (12 by 12) Ohio (primary grades), Pennsylvania, Utah, Vermont, Virginia (12 by 15).

216—Minnesota, New Jersey, South Dakota.

225—Indiana, Ohio (grammar grades), Oklahoma.

250—Montana (towns over 1,000), Ohio (high schools).

Ohio has also a varying arrangement for ceilings, significant for lighting as well as for ventilation. The minimum height for toilet, play, and recreation rooms is 8 feet; for all other rooms not less than half the average width of the room, and in no case less than 10 feet.

Rate of air change.—Nothing in school hygiene is more conventionalized than the amount of fresh air per pupil per minute. Thirty cubic feet is the standard in all the States listed in this column of Table 5, with the exception of Ohio. The requirement is not unconditional, however, in each case. In Pennsylvania it does not affect even the new buildings which are only one story high and cost less than \$4,000. The possibility of the use of windows is suggested by three States that say nothing on windows in their legislative or administrative requirements; Massachusetts holds for 30 cubic feet of fresh air if the outside air is below 30° F.; Minnesota maintains the 30 cubic feet only when outside and inside temperatures differ by over 30° F.; Texas waives the minimum except in cold weather. There is also a rule of the Texas State Board of Health that 50 cubic

¹ State Bd. of Health, Bull., July, 1913, p. 37, par. 103.

feet per minute shall be furnished, but the legislative enactment calling for 30 cubic feet is so much younger as to suggest that the rule of the board of health had fallen into abeyance, if it were ever effective. The Ohio law states that the air in all parts of the building, except corridors, halls, and storage closets, shall be changed at least six times per hour. In view of the minimum air space per pupil this would mean from 20 to 25 cubic feet per pupil per minute.

Rate of air change is measured in various ways, some of which are very misleading. Indiana alone has described how the calculation is to be made. The rules of procedure of the State board of health are as follows: The anemometer test shall be made over the foul-air vents in the classrooms, if jacketed heaters or gravity systems are used; over the fresh-air inlet of the fresh-air room and the fresh-air inlet in classrooms, if a plenum system is in use; at the fresh-air intake and at the foul-air vents in classrooms, if a double system of mechanical ventilation is in use. In every test five readings shall be taken, one near each corner and one at the center of the air opening to be tested. A deduction of 5 per cent shall be made for a grill in the air opening. The inlets in buildings of over one room are to be screened with 8-inch gauge wire of 1½-inch mesh. This accounts for the small deduction made for grill work.

Location of inlets and outlets.—On the position of inlets and outlets, either in relation to each other or to the room, seven States have had something to say. They must be on the same side of the room in Indiana (in buildings of over one room), Minnesota, North Dakota, and Vermont (usually). For the larger schools it is common to find the inlets placed well up on the walls. In Indiana the height is not less than 5 feet above the floor. Minnesota and Ohio place inlets 8 feet or more above the floor, but Ohio permits foot warmers in the floor. Vermont says merely that they must be near the ceiling, while North Dakota goes no further than to forbid their being in the floor. Vents are to be placed at floor level in Indiana, Minnesota, and Texas; at or near the floor level in North Dakota and Vermont; not over 2 inches above the floor line in Ohio; at the base of the chimney in South Dakota. If the wardrobe is not separated from the classroom, the vent shall be placed in the former (Indiana, Ohio). "Foot warmers" in the floor are forbidden in Indiana.

Size of inlets and outlets.—The size of flues may be governed by their relationship (1) to the size of room, (2) to the size of other flues, (3) to the size of registers. Very different bases have been adopted for the determination of size of flues in relation to size of room. Indiana requires only that ventilating ducts shall be ample to withdraw the air four times per hour, but the State board of health has standardized with commendable accuracy and has made somewhat different requirements when the foul-air and smoke vents are

separate than when they are the same or when a different system of ventilation is employed. The cubic feet of air space in the room is the guide; but if ceiling height is figured at 12 feet, the minimum permitted, we can approximate the minimum ratio of cross section of inlet to floor area. For one-room buildings it will vary according to conditions from about 1 to 350 to 1 to 650, which is considerably less than in the other States compared in the next paragraph. For the larger buildings with plenum systems of ventilation inlets may have a minimum cross-sectional area of 9 square inches for each occupant, while for gravity systems the minimum is 16 square inches per occupant. Supposing the room once again to have the minimum ceiling of 12 feet and to be filled to its capacity of one person per 225 cubic feet of air space, the ratio of cross section of inlets to floor area would be about 1 to 300 for a plenum system and 1 to 170 for a gravity system.

For an ordinary one-room school with a jacketed stove and 30 pupils in the room Vermont demands an inlet 24 inches by 30 inches; New Jersey fixes 1 square foot per 10 pupils as the cross section of intakes. South Dakota and Minnesota make the size of intakes dependent upon floor area. By utilizing the minimum requirements of floor area per pupil, we can secure a ratio between the cross section of inlets and the floor area for comparison of the four States as follows:

- 1 to 108—Vermont.
- 1 to 144—South Dakota.
- 1 to 160—Minnesota (gravity system, connected with furnace or steam plant).
- 1 to 180—New Jersey.
- 1 to 270—Minnesota (plenum system).
- 1 to 400—Minnesota (buildings of less than four rooms with furnaces or jacketed stoves).

The results for Minnesota, at least, are quite closely comparable with those for Indiana (see preceding paragraph).

Absolute minima.—Minnesota has also set absolute minima, regardless of the size of the room. The State superintendent, in passing upon applications for State aid, will hold for inlets and vents 15 inches in diameter for one and two-room schools. These minima will maintain the ratio 1 to 400 for rooms 18 feet by 24 feet to 18 feet by 27 feet. For furnace heat and homemade systems of ventilation the State superintendent in granting State aid stands for inlets and outlets 20 inches by 20 inches, the latter perhaps containing a smokestack of 8 inches diameter. The fixed minima for inlets and outlets in Indiana is 12 inches by 12 inches.

Relative size of inlets and outlets.—Consideration of the size of flues in relation to size of other flues means a comparison of inlets and outlets. Usually the requirement is that the outlets shall be at least

as large as the inlets (Massachusetts, New Jersey, Ohio, South Dakota). The State superintendent of North Dakota takes the opposite view. In Indiana, however, the policy is reversed according to the method of ventilation employed. If it is the plenum, the inlets may be 10 per cent smaller than the outlets; if it is by gravity, the outlet may be one-eighth smaller than the inlet.

Relative size of registers and flues.—Registers of the same size as the horizontal area or cross section of warm-air ducts are branded as inefficient in Minnesota. The State superintendent asks for an excess of 25 per cent in register area over flue area, to compensate for grill work, whereas in Indiana an allowance of but 5 per cent is made for this factor. Registers for vents are declared unnecessary in Minnesota, and forbidden in Indiana except with stoves and heaters. The latter State permits an approved damper to close the vent when not in use. The Ohio law calls for vent registers 50 per cent larger than vent flues, if a register is used.

Windows or doors in ventilation.—A half dozen States frankly admit their reliance upon doors or windows for ventilation. This is seen in the requirement that all windows must lower from the top and raise from the bottom (Delaware); that windows must be capable of being lowered from the top and the transoms opened (Louisiana); that if windows alone must be relied upon they must be readily adjustable at top and bottom (Pennsylvania). More direct is the rule that doors and windows shall be opened at each intermission to flood the room with fresh air (California, Indiana, Oklahoma, Oregon, Washington).

Miscellaneous.—Miscellaneous regulations on ventilation can not be conveniently summarized because of their diversity. A few general provisions may be placed first: There must be a satisfactory means of exhaust and "some form of forced ventilation in buildings of more than four rooms" (Montana). There shall be facilities for exhausting the foul air "independently of atmospheric changes" (New York, Utah, Virginia). Rural schools which, among other things, install "an adequate system of ventilation" are entitled to special State aid of \$50 per year for three years (Wisconsin). The State superintendent is empowered to fix the standards, and the county and district superintendents are empowered to rule whether the standards are met.¹ The State board of health "shall also examine into and devise as to * * * the ventilation and warming of public halls, churches, schoolhouses," etc. (West Virginia). The velocity of the air introduced shall not be over 300 feet per minute (New Jersey), or it shall be between 300 and 400 feet per minute (New York). In a steam gravity system for each square foot

¹ These standards were briefly referred to on p. 55. ante.

of horizontal area of fresh-air flues there must be 50 square feet of indirect radiation, and an accelerating coil equivalent to not less than 20 square feet shall be provided for each vent flue (Minnesota). The object of the first part of this provision is the heating of the fresh air, a point that is not overlooked by the State superintendent in examining petitions for State aid. Fresh air must be heated before it is discharged into the schoolroom (North Dakota). The introduction of fresh air at the base of a direct radiator is prohibited (Minnesota). Each classroom must have separate inlet and outlet flues (New Jersey). The smoke pipe from a jacketed stove shall enter the vent flue not over 6 feet from the floor (Vermont). An approved ventilating stove is allowed in one and two room buildings (New Jersey). The State superintendent in approving plans will expect the cold-air duct to be lined with metal, with the outer end so sloping as to keep it dry and all openings screened against entrance by animals (South Dakota). In a plenum system of ventilation the air pressure inside the room shall be in excess of that outside (Minnesota). By a separate system of ventilation through vertical flues, hoods shall be provided in all domestic-science rooms and chemical laboratories sufficient to conduct away offensive odors. This system shall be operated by electric fans if an electric current is available or by accelerating coils if steam or hot water is used for heating (Ohio). Gas plates or gas stoves used in connection with either cooking or laboratory work shall be connected by hoods with a separate vertical vent flue, in which an upward draft shall be constant (Indiana).

Humidification.—One item certainly merits the distinction of a separate paragraph. In Minnesota the State superintendent, before he allows State aid to any school, requires that furnace heaters be supplied with a reservoir to humidify the air on its way to the schoolroom. If other simpler forms of heating are in use, an evaporating dish or vessel must be properly placed near the source of heat. An exception is made in favor of steam heat.

X. CLEANING AND DISINFECTING.

Ordinary and extraordinary cleaning and disinfecting.—Provisions for cleaning and disinfecting in relation to the school plant in general are considered here, since discussion of the special care of toilets and outbuildings has been shifted to the section which treats of those accommodations. In over one-fourth of the States only has this important subject been controlled in any degree outside the districts themselves. Some of the laws or regulations are almost model; others are wholly inadequate. State boards of health are to be thanked for nearly all that has been accomplished. Aside from

Connecticut,¹ Massachusetts,² Pennsylvania, and Wisconsin,³ which prohibit by law spitting on the floor of any public building, and Louisiana⁴ and Vermont, where the boards of health forbid spitting in any schoolroom, 12 States have entered this field; 9 of these provide for regular or ordinary cleaning or disinfecting; 7 States discuss special cases. Minnesota is disposed of by citing the unique requirement that "each entrance must be provided with foot scrapers and cocoa or steel mats,"⁵ while the State superintendent of North Dakota has a similar condition when granting State aid.⁶

Treatment of floors.—Ordinary cleaning and disinfecting is covered by all sorts of provisions, such as special treatment of the floors, proper time for the work, prohibitions and prescriptions of methods, materials, etc. All floors except hardwood or tile must be oiled twice a year, and three times if school holds nine months. Oiling shall always be preceded by a scrubbing (Indiana).⁷ All floors must be treated with some antiseptic dressing approved by the State analyst. They are to be scrubbed before each treatment, and treated often enough to keep down the dust (Louisiana).

Frequency of cleaning.—As to frequency of cleaning, etc., there are the following standards: All schoolhouses shall be cleaned and disinfected before the opening of each school year;⁸ the janitor shall remove chalk dust daily and clean erasers outside (Indiana); floors shall be swept daily; desks, wainscoting, window sills, and blackboards must be wiped daily with a 1–2,000 solution of bichloride of mercury or a 3 per cent solution of carbolic acid; all schools shall be disinfected "before the beginning of each school session" (Louisiana).⁹ In rural schools floors, interior woodwork, and windows shall be thoroughly scrubbed and cleaned every three months (Montana).¹⁰ Balustrades of stairways and door knobs are to be wiped daily with a cloth moistened in a solution of formaldehyde or carbolic acid (Nebraska).¹¹ Every local board of health shall cause each schoolhouse in its jurisdiction to be disinfected every 30 days, except in vacation time (North Dakota).¹² In all cities a method of disinfection shall be adopted for the fumigation of schools at regular intervals of not more than two weeks (Pennsylvania).¹³ Pennsylvania further requires that

¹ Acts of 1909, ch. 166.

² Act approved Mar. 2, 1908.

³ Laws of 1911, ch. 407.

⁴ School Laws, p. 125.

⁵ Bull. No. 40, Dept. Pub. Instr.

⁶ State aid to consolidated, graded, and rural schools.

⁷ Book of Instructions to Health Authorities, issued by State Bd. of Health, p. 37.

⁸ School Laws, p. 137.

⁹ Ibid, p. 126.

¹⁰ Laws of 1913.

¹¹ School Law, p. 121.

¹² Laws of 1911, ch. 63.

¹³ Purdon's Digest of Statute Law of State of Pennsylvania, pp. 698–699.

"all school directors, trustees, principals, and presidents of schools and colleges outside of cities * * * pay prompt and regular attention to the disinfection of buildings used for educational purposes immediately after the discovery of any communicable disease within said building."¹ Floors shall be swept daily except on holidays; all wainscoting, window ledges, and furniture shall be wiped daily with a cloth dampened by an approved disinfectant; all removable rugs, cushions, and other upholstery are to be thoroughly aired and sunned by removal from the building weekly (Texas).² All sweepings must be removed daily; furniture and woodwork are to be wiped with a disinfectant solution once a month and with a damp cloth once a week (Virginia).³ All schoolhouses, before school opens at the beginning of each school term, shall be thoroughly cleaned (Wisconsin).⁴ The new Wisconsin law of 1913 requires the use of vacuum sweepers.

Methods prescribed.—Prescriptions of method are as follows: "Cleaning shall consist in first sweeping, then scrubbing the floors, washing the windows and all woodwork, including the wooden parts of seats and desks, and the disinfecting shall be done in accordance with the rules of the State board of health," dusting shall be done with an oiled cloth (Indiana); windows shall be thrown open after sweeping and the rooms thoroughly aired, disinfection follows the rules of the State board of health (Louisiana); the local or State board of health must approve all methods of disinfection (Pennsylvania); before sweeping, the floor shall be sprinkled with an approved disinfectant solution, saturated sawdust preferred (Texas); no disinfectant solution is necessary, but the floor must first be dampened with water, damp sawdust, or damp paper (Virginia).

Practices forbidden.—Several very common practices are forbidden in some States. Dry sweeping is tabooed in Indiana. No sweeping can be done until after dismissal for the day in Indiana, Louisiana, Texas, and Virginia. The Indiana State board of health orders that blackboards and erasers shall not be cleaned by pupils, nor until the session is over. With a single exception every rule is of State-wide application.

Extraordinary cleaning.—Extraordinary cleaning or disinfecting follows in seven States immediately upon the discovery in any school of any of a certain class of diseases. These are variously described as "communicable," "dangerous communicable," "contagious," "infectious," and "quarantinable." But three of the States have a special list of specific diseases that call at once for action.⁵ This list includes

¹ Rules and Regulations, Aug. 15, 1911.

² School Laws, pp. 92-93.

³ School Laws, p. 45.

⁴ Laws of 1911, ch. 44; acts of 1913, ch. 274.

⁵ See published rules of boards of health of various States.

scarlet fever, smallpox, and diphtheria in all three States, measles in two, and infantile paralysis, epidemic spinal-meningitis, and bubonic plague in one each. In Indiana and Michigan it is only the rooms attended by the stricken child that must be disinfected, but in the other States the entire building must be closed and treated. The method of disinfection is in the hands of the State board of health with one possible exception, and this body has been very careful in some States to explain everything to the minutest detail. Drawers, closets, and desks are opened. Books are stood on end, wide open. The rooms are made air-tight, kept sealed for six hours, then flooded with fresh air for another six. Corrosive sublimate solution may be afterwards used to wipe all clothes closets and desks; for metal fixtures a solution of carbolic acid in hot water is commonly employed. Formaldehyde is favored by most as the disinfecting gas.

XI. FURNITURE AND EQUIPMENT.

Two items of furniture and equipment at once occur to the mind as media with which the child is almost continually in contact during the school day. These are the books on the one hand, the desk and seat on the other. It is with these in some form that most of the rules under this section deal.

Books.—Two general classes of provisions affect books, (1) those which concern disinfection, (2) those that relate primarily to the hygiene of the eye. Rule XXI of the Idaho State Board of Health states that school or library books taken to a house where Asiatic cholera, smallpox, yellow fever, infantile paralysis, typhus fever, diphtheria (membranous croup), cerebro-spinal meningitis, or scarlet fever exists, must be destroyed. The State law also says that books belonging to any district which happen to be in the house of a pupil when he is confined with a quarantinable disease, must be disinfected by the attending physician before being returned to the school.¹ Rules of the Wisconsin² and Nebraska³ State boards of health are equivalent to that of the Idaho board. The Oregon board requires that under similar conditions books shall be destroyed or properly disinfected before being placed again in circulation.⁴ Since Dr. L. B. Nice reported in 1911 that nine States disinfect by steam or burn badly soiled books,⁵ it may well be that the above data do not represent fully the present status. The statutes of Maine contain a useful provision that no second-hand books shall be purchased by any district.⁶

¹ School Laws, p. 60.

² Rule 11.

³ School Law, p. 121.

⁴ Statutes relating to public health, etc., p. 48.

⁵ Monthly Bull., Ohio State Bd. of Health, Aug., 1912, p. 272.

⁶ Laws of 1909, ch. 131.

Alabama,¹ Florida,² Georgia,³ Kentucky,⁴ Louisiana,⁵ Mississippi,⁶ Missouri,⁷ North Carolina,⁸ Oklahoma,⁹ and South Dakota,¹⁰ legally authorize textbook commissions, usually of the State, sometimes of the county, to consider in the selection of texts such qualities as printing, type, paper, binding, etc. Oddly enough, these commissions appear not to have adopted definite standards.

Seats and desks.—On general furniture Delaware is at least explicit. The furniture must be modern according to the standards of the State board of education,¹¹ but what these standards are is a matter of doubt. Apparently they have not been published. Minnesota is the only State that has legally adopted single desks;¹² 20 per cent of all desks and seats in each room shall be adjustable in Indiana.¹³ Adjustable furniture is not spoken of in either the Vermont statutes or in the rules of the State board of health, but the correspondence of the latter body shows that the schools at Newbury, Groton, and Royalton have been compelled to put in adjustable seats.¹⁴ The Indiana health authorities in each locality are charged to see that the adjustable furniture is changed once or twice each year to allow for the growth of the pupils;¹⁵ and the State health officers make some special requirements for crippled children. Desks shall be "of suitable size" (Minnesota). The State superintendent in South Dakota before approving plans will look carefully to the spacing of seats.¹⁶ He will expect an interval of 9 inches from the back of the seat to the edge of the desk in primary rooms, 10 inches in intermediate grades, 11 or 12 inches in grammar grades, and 1 foot in the high school. He advises against the policy of placing different sizes of seats in the same row. The Vermont Board of Health describes the seat and desk in some detail.¹⁷ The height of seat shall correspond to the length of the leg below the knee; the seat must be horizontal or slightly curved, the lower back convex, the upper back concave; the desk and seat are to overlap slightly, and the desk for writing to slant about 15°. The New Jersey State Board of Educa-

¹ Gen. Pub. School Laws.

² Digest of School Laws, p. 100.

³ School Laws and Decisions, p. 50.

⁴ School Laws, p. 338.

⁵ Sec. Laws of 1910, Act No. 39.

⁶ School Laws, p. 42.

⁷ Revised School Laws, p. 108.

⁸ Public School Law, p. 86.

⁹ Laws and Opinions for the Regulation and Support of the Common Schools, p. 18.

¹⁰ School Laws, sec. 225-235.

¹¹ Personal Letter of State Supt., dated May 7, 1913.

¹² State Health Laws and Reg., p. 54.

¹³ School Law, p. 135.

¹⁴ Sixteenth Rept. of State Bd. of Health, pp. 26, 25, 44.

¹⁵ Book of Instruction to Health Authorities, issued by State Bd. of Health.

¹⁶ Bienn. Rept. State Supt. Pub. Instr. (1910-12), p. 154.

¹⁷ Regulations issued May 1, 1911.

tion includes the location of each pupil's desk and the teacher's desk in the blue prints of the plans on which it passes, and no seating arrangements may be changed without the board's approval.¹ Aisles at the side and rear of the room in South Dakota must be at least 30 inches, all others about 20 inches. According to the Ohio law all classrooms must have aisles on all wall sides. The minima for wall and center aisles are as follows:²

Minimum width of aisles in Ohio.

Grades.	Center.	Wall.
	<i>Inches.</i>	<i>Inches.</i>
Primary grades.....	17	28
Grammar grades.....	18	30
High-school rooms.....	20	36

For auditoriums additional detailed provision is made. All seats, chairs, and desks for pupils in classrooms or auditoriums shall be fastened to the floor, unless less than 16 pupils are seated in the room. Not a word more about classroom seating, but in assembly rooms (those accommodating over 100 persons) benches or chairs shall not be less than 2½ feet from back to back, measuring horizontally, and the width of the seats shall average 20 inches per person, measuring from center to center of seat arms. No such seat shall be less than 19 inches wide, and if benches are used, 15 inches of bench length shall be allotted each person. In assembly halls no seat shall have more than six seats between it and the aisle. Thus it impresses one that, while Ohio has more legislation on seating than any other State, the entire effort has been directed toward the prevention of injury or death in an emergency, rather than toward conserving the health of the child day by day.

Blackboards.—The Montana Board of Health forbids blackboards between windows.³ The Indiana law requires that they be a dead black.⁴ The Vermont Board of Health combines the two requirements. There appears to be an utter absence of rules regarding the height of blackboards, though several State departments of education make suggestions. Those of South Dakota may be quoted as typical. "The following are the best heights adapted to the various grades: 26 inches for primary grades, 30 inches for the intermediate grades, and 36 inches for grammar and high-school grades."⁵

¹ State Building Code.

² State Building Code, Part 2, title 3, sec. 10. The same figures exactly have been adopted by the Ind. State Bd. of Health. See Bull., 1913, No. 52, U. S. Bu. of Ed., pp. 17-18.

³ Regulation 26.

⁴ School Law, p. 135.

⁵ Bienn. Rep. of State Supt. (1910-1912), p. 152.

XII. MISCELLANEOUS.

Basements.—The basement has often been regarded as a legitimate place to dispose of the overflow in rapidly growing school systems. The possible dangers of basement schoolrooms are receiving recognition at present, and there seems a well-defined drift toward doing away with such quarters altogether except for temporary uses. Minnesota was the first State to take drastic action. A law of 1909 directs that in any city of 20,000 or more no basement room shall be employed for "grade school purposes," unless it is used exclusively for domestic science, manual training, or physical culture.¹ This statute was not made fully operative till the opening of the school year 1912-13, thus permitting towns to adjust themselves to the new conditions. It is now made applicable to a school in any locality, regardless of population. A basement room was defined as one "the floor of which is below the surface of the surrounding ground on all sides of said room." The Ohio State building code declares that all rooms used for school purposes, except those devoted to domestic science, manual training, and recreation, must be wholly above grade line. The exceptions noted may be placed partly below grade if properly lighted, heated, and ventilated,² but all basement rooms used by pupils or public must have a waterproof floor.

All two-story school buildings shall have a dry, well-lighted basement under the entire building, the floor of the basement to be cement or concrete, and the ceiling 10 feet high (Indiana).³ In the smaller buildings, where the basements are not finished or not properly heated and ventilated, a swinging door with spring hinges shall be used to prevent basement air from entering rooms or corridors above (Indiana).⁴

Foundations.—All school buildings shall have a solid foundation of brick, tile, stone, or concrete, and thorough ventilation between ground and floor, the latter to be not less than 3 feet above the earth; and all brick school buildings shall have a foundation of vitrified brick, or of stone, or have above the ground line a layer of slate, vitrified brick, stone, or other impervious material (Indiana). Moreover, no foundation shall be laid on filled ground or soil containing a mixture of organic matter. A rule of the Vermont State Board of Health denies approval of plans unless floors of buildings without cellars are 2 feet above ground and free circulation of air allowed beneath.⁵ South Dakota is satisfied with 18 inches.⁶

¹ Laws of 1909, ch. 52.

² Part 2, title 3.

³ School Law, p. 134.

⁴ Bull., 1913, No. 52, U. S. Bu. of Ed., p. 15.

⁵ Regulations issued May 1, 1911.

⁶ Bien. Rep. of State Supt. Pub. Instr. (1910-1912), p. 151.

Floors.—Provisions affecting floors look mostly toward one end, viz, tightness. All toilet rooms, lavatories, and other rooms where plumbing fixtures are used, shall have a waterproof floor and base of nonabsorbent, indestructible material, such as asphalt, glass, marble, vitrified or glazed tile or terrazzo, or monolithic composition (Ohio).¹ All floors of toilet rooms and others in which plumbing is found shall be of nonabsorbent, waterproof material, with nonabsorbent, waterproof base not less than 6 inches high and nonabsorbent, waterproof sanitary cove; wherever possible the floors of laboratories, domestic-science rooms, and corridors shall be subject to a similar rule; floor coverings are prohibited except in the superintendent's or principal's office, rest rooms, or teachers' rooms (Indiana).² The new law in Texas reads that "all floors shall have their surfaces made impervious to water and germs by a coat of boiling paraffin oil or other floor dressing having similar effect, applied immediately after the floor is laid."³ Floors should be of hard, well-seasoned wood, closely laid, so as to leave no cracks (South Dakota).

Interior finish.—Recent years have witnessed the introduction of much greater simplicity into the architecture of the interior of all classes of buildings, to the end that the collection of dust may be decreased. This is just beginning to influence schoolhouse construction. Ohio has done most in this direction, requiring (1) that all base shall be 6 inches high and have a sanitary cove at floor level, (2) that all interior wood finish shall be small as possible and free from unnecessary dust catchers, (3) that door and window jambs be rounded and plastered, except in museums, libraries, and art galleries. Indiana has practically an identical regulation. The Texas law referred to in the preceding paragraph also provides that all interior woodwork shall be without "such unnecessary fluting, turning, or carving as catch dust and microbes." "Wainscoting should never be used in a school building, as it is insanitary" (South Dakota).⁴

Wardrobes and vestibules.—The Indiana law reads that separate and well-lighted, warmed, and ventilated cloakrooms, or sanitary lockers, shall be provided for each study schoolroom.⁵ If separated from classrooms, the wardrobes shall be separately heated and ventilated the same as the former (Ohio, Indiana).⁶ A cloakroom shall be at least 6 feet wide and have an outside window (Minnesota).⁷ New schools of one and two rooms must have a vestibule of reason-

¹ State Building Code, part 2, title 3.

² Bull., 1913, No. 52, U. S. Bu. of Ed., p. 11.

³ Law effective July 1, 1913.

⁴ Bienn. Rep. State Supt. Pub. Instr. (1910-12), p. 154.

⁵ School Law, p. 135.

⁶ Bull., 1913, No. 52, U. S. Bu. of Ed., p. 15.

⁷ State Health Laws and Reg., p. 54.

able size (Montana).¹ Corridors when used as coatrooms shall be well lighted and ventilated (Vermont).

Protection from boiler explosion.—Insurance against the horrors attendant upon a boiler explosion have been in the minds of legislators of several States when passing school laws. They have gone about the business in as many different ways. Maine looks to the engineer. It has enacted that a school, church, or other public building heated by a steam plant under or near such building, must employ to care for the same a person whose capacity shall be tested by the local municipal authorities.² Massachusetts tests the boiler instead of the engineer. Steam boilers in public buildings are to be inspected as often as once a year, both externally and internally, as to general condition, safety valve, appliances for indicating pressure, etc.; and all boilers shall have a fusible safety plug of lead or something equally fusible.³ Ohio has decided to change the location of the boiler if necessary. "No cast-iron boiler carrying more than 10 pounds pressure or steel boiler carrying more than 35 pounds pressure shall be located within the main walls of any school building." These three laws regarding steam boilers are no doubt only representatives of their classes, since similar enactments are to be found in a large number of the States.

Rest rooms.—Ohio has spoken on one very interesting feature. In all schools of four to eight class rooms there must be one rest room; in all schools of over eight classrooms, two rest rooms. The equipment of such a room shall consist of a couch, supplies for first aid to the injured, water supply, and toilet accommodations.

The school hack.—Since Indiana has led the country in the movement for consolidation and transportation, it is not surprising that it has regulated somewhat the hygiene of the school hack. This vehicle must be well lighted, heated, and ventilated. Twice a year, once at the opening of school and again at Christmas, it shall be thoroughly cleaned and disinfected according to the rules of the State board of health. There is to be no overcrowding, but each child shall have a comfortable seat. Foot rests shall be provided for smaller pupils if their feet do not rest comfortably on the floor.

Ohio has yet another provision that must be classed as miscellaneous, because it may have a variety of bearings. No school building shall occupy over 75 per cent of a corner lot, or 70 per cent of any other site.

¹ Laws of 1913.

² Laws relating to public schools, p. 49.

³ Acts of 1907, ch. 485.

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Stewart's Purdon's Digest of the Statute Law of the State of Pennsylvania, 13th edition. The Geo. T. Bissel Co. Philadelphia, 1905–10. 6934 pp.
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Laws of 1895; Laws of 1903; Act of April 27, 1905; Act of April 13, 1911; Act of June 7, 1911.
- Rhode Island—Laws of Rhode Island Relating to Education. E. L. Freeman Co., State Printers. Providence, 1910. 119 pp.
Laws of 1911.
- South Carolina—General School Law of South Carolina. The Michie Co., Printers. Charlottesville, Va. 97 pp.
Acts of 1912; Acts of 1914.

- South Dakota—School Laws of South Dakota. Educator School Supply Co. Mitchell, S. Dakota. 143 pp.
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- Tennessee—Annotated Code, 1896.
- Texas—School Laws of Texas. Von Boeckmann-Jones Co., Printers. Austin, 1909. 112 pp.
Revised Civil Statutes; Acts of 1913, ch. 120.
- Utah—School Law of Utah. Star Printing Co. Salt Lake City, 1911. 156 pp.
Compiled Laws, 1907.
Laws of 1911.
Ninth Report of the Superintendent of Public Instruction of the State of Utah (advance sheets).
- Vermont—General Laws of the State of Vermont relating to Public Instruction. The Capital City Press, Printers. Montpelier, 1911. 69+14 pp.
General Laws of 1906.
Public Statutes.
Regulations of State Board of Health, issued May 1, 1911.
16th and 18th Reports of the State Board of Health of Vermont.
- Virginia—Virginia School Laws. Clyde W. Saunders, Printer. Richmond, 1910. 244 pp.
Laws of 1908; Laws of 1910; Laws of 1914.
- Washington—School Laws of the State of Washington. E. L. Boardman, Public Printer. Olympia, 1909. 160 pp. Acts of 1913.
Codes and Statutes. State v. Superior Ct., Chelan Co., 1912.
Rules and Regulations of State Board of Health for 1912.
- West Virginia—The Revised School Law of West Virginia. Charleston, 1911. 175 pp.
State v. Board of Education, Clarksburg Sch. Dist., 1912.
Code Annotated, 1906.
Laws of 1913.
- Wisconsin—Laws of Wisconsin Relating to Common Schools. State Printer. Madison, 1911. 403 pp. Acts of 1913.
Supplement to Statutes, 1899-1906.
Laws of 1907; Laws of 1909; Laws of 1911.
Rules of the State Board of Health.
- Wyoming—Compiled Statutes, 1910.

BULLETIN OF THE BUREAU OF EDUCATION.

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- No. 53. Monthly record of current educational publications, December, 1913.
- No. 54. Consular reports on industrial education in Germany.
- No. 55. Legislation and judicial decisions relating to education, October 1, 1909, to October 1, 1912. James C. Boykin and William R. Hood.
- No. 58. Educational system of rural Denmark. Harold W. Foght.
- No. 59. Bibliography of education for 1910-11.
- No. 60. Statistics of State universities and other institutions of higher education partially supported by the State, 1912-13.

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- No. 7. Monthly record of current educational publications, March, 1914.
- No. 8. The Massachusetts home-project plan of vocational agricultural education. R. W. Stimson.
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- No. 43. Educational directory, 1914-15.
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- No. 15. Monthly record of current educational publications, Index, Feb., 1914-Jan., 1915.
- No. 16. Monthly record of current educational publications, June, 1915.
- No. 17. Civic education in elementary schools as illustrated in Indianapolis. Arthur W. Dunn.
- No. 18. Legal education in Great Britain. H. S. Richards.
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- No. 20. The rural school system of Minnesota. H. W. Foght.



